DOCUMENT RESUME

ED 126 418 CG 010 727

TITLE	School Age Mother and Child Health Act, 1975. Hearing Before the Subcommittee on Health of the Committee on Labor and Public Welfare on S. 2538 to Enact the National School Age Mother and Child Act of 1975, and Related Bills. U.S. Senate, Ninety-Fourth Congress, First Session.
INSTITUTION	Congress of the U.S., Washington, D.C. Senate Committee on Labor and Public Welfare.
PUB DATE	4 Nov 75
NOTE	884p.; Not available in hard copy due to small type of original document
EDRS PRICE	MF-$1.67 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	*Adolescents; *Community Health Services; Day Care Services; Dropout Rehabilitation; *Federal Legislation; Government Publications; *Health Needs; Health Programs; Laws; *Pregnant Students; *Public Health Legislation; Social Services; Voluntary Agencies; Welfare Services
IDENTIFIERS	*Senate Bill 2538

ABSTRACT

This document presents testimony given at the November 4, 1975 hearing on Senate Bill 2538 to enact the National School-Age Mother and Child Health Act of 1975. Statements were made by representatives from the federal government, state and private health service agencies, and medical doctors. The bill concerns the provision of comprehensive health, education, psychological, and social services for adolescent parents and their children. In addition the bill would improve existing services and provide family planning and school dropout counseling for adolescent parents. (HLM)

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SCHOOL-AGE MOTHER AND CHILD HEALTH ACT, 1975

HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON LABOR AND PUBLIC WELFARE

UNITED STATES SENATE

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

S. 2538

TO ENACT THE NATIONAL SCHOOL-AGE MOTHER AND CHILD HEALTH ACT OF 1975

AND RELATED BILLS

NOVEMBER 4, 1975

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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SCHOOL-AGE MOTHER AND CHILD HEALTH ACT, 1975

TUESDAY, NOVEMBER 4, 1974

U.S. SENATE,
SUBCOMMITTEE ON HEALTH OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met pursuant to notice at 9:35 a.m., in room 4232 Dirksen Senate Office Building, Senator Edward M. Kennedy (subcommittee chairman) presiding.

Present: Senators Kennedy, Schweiker, and Beall.

Staff present: Dr. Arthur Silverstein, staff assistant; Dr. Philip Caper, profesisonal staff member; and Jay B. Cutler, minority counsel.

OPENING STATEMENT OF SENATOR KENNEDY

Senator KENNEDY. The subcommittee will come to order.

I would like to welcome all of you this morning to join with the Subcommittee on Health in exploring an increasingly important issue which faces our society: That of the growing number of school-age youngsters who are bearing and rearing children. Some of these young people are still children themselves, scarcely able to cope with childbearing and child-rearing, which we would all agree is a significant challenge even to the mature adult.

The problem of school-age parents is becoming critical. Not only is the number of the teenagers in our population increasing, but this is the only group in our society in which the number of births shows a continuing increase. Well over 600,000 babies will be born to teenage women in 1975, and the number of births to girls under the age of 15 has doubled in the last 12 years. These problems cut across social, economic, and ethnic classes, and exists in urban, suburban, and rural areas alike.

It is clearly time that we recognize this situation on the national level, and it is clearly time also that we develop a comprehensive program not only to assure the health needs of these young mothers and their children, but also to help both parents and children cope with their special problems and assist them in making reasonable lives for themselves.

All of the experts agree that the birth of a child to a school-age parent has tremendous consequences to the mother, father, and the child itself. Pregnancy among school-age girls is the leading cause of high school dropouts among girls, and imposes a terrible burden on the girl, as well as a social burden on society. And for about 60 percent of these girls, the birth of a child begins a cycle of dependency upon public welfare.

The health problems associated with this type of pregnancy are also considerable. Health experts point out that the younger the mother, the more likely the child is to be underweight, to be born premature, and to suffer a wide variety of health and other social disadvantages. Thus, infant morbidity and mortality in this group of young parents is significantly higher than those seen among older parents. All of the information that I have seen in this area suggests to me that there are important health and social problems raised by school-age pregnancies which are not being met in any satisfactory and comprehensive way.

There is one other issue here that we must face squarely. While many of these young pregnant women elect abortion, over two-thirds of all mothers age 19 years or under elect to carry their babies to term. Given the inadequate support available to most of these young girls to satisfy their own health needs, the health needs of their children, the many types of social counselling that they need—such as child care, family planning, vocational counseling, and similar services—these young girls must resign themselves either to a bleak future, or choose the alternative of abortion.

I hope that the witnesses who will testify this morning will help us to explore all aspects of this problem to the fullest extent possible. We would like to determine precisely how large the problem is in terms of numbers, and how serious are the health and social problems that accompany school-age pregnancies.

Finally, it will be important for us to obtain hard evidence for what many of us now suspect to be the case: That the value of a dollar invested in solving this problem today will be multiplied many times not only in relieving human physical and mental suffering, but also in saving money tomorrow that would have to be spent on the health and social welfare needs of these young parents and their children.

The witnesses this morning include: representatives from the Department of Health, Education, and Welfare; Mrs. Sargent Shriver and a panel of experts in the fields of adolescent parenthood, maternal and child health, social counseling and related disciplines; Senator Birch Bayh; and Mr. Jack Hood Vaughan, president of Planned Parenthood Association.

Would you like to make a comment, Senator Schweiker?

Senator SCHWEIKER. I want to say, Mr. Chairman, that I am pleased to join with the chairman in facing up to hearings on this problem, and I am glad to see that we are going to have a frank and candid discussion and try to suggest some legislative solutions to a very difficult problem.

That is all I have, Mr. Chairman.

Senator KENNEDY. Senator Beall.

Senator BEALL. Thank you, Mr. Chairman.

I, too, am happy that we are having these hearings today.

I am disturbed by the figures indicating the kind of problem this is.

We are concerned about the fact that during pregnancy adolescent girls are more likely to suffer from toxemia and anemia due to iron deficiency and prolonged labor.

In addition, it is the great emotional and financial strain placed on teenaged parents that causes an inordinate amount of babies to be placed in foster institutional care.

I hope, as a result of this hearing, we will determine if we can provide some Federal assistance to local governments in helping to alleviate the problem.

Also, I am hoping we are going to focus attention on the fact that teenagers themselves probably need to be alerted to the problem, and that there should be some organized effort to alert teenagers to the dangers of pregnancy for them.

I was recently visited by a group of people from Baltimore, some distinguished lawyers who proposed a crime commission.

They presented some very alarming statistics which people hesitate talking about, which I think need to be mentioned, and that is that in the city of Baltimore, according to these statistics, 50 percent, slightly more than 50 percent of the major crimes, that is, burglary, robbery, rape, and those kinds of crimes are being committed by people under 20 years of age.

The statistics also showed that of those 50 percent, 80 percent of those crimes were committed by people who were illegitimate.

I think we have to be talking about these things rather than pushing this under the table.

We have to look at the causes of these problems and see if we cannot come up with some solutions that will lead to a healthier environment in which we can get a better understanding of the nature of our problems and the way we can handle them.

I am happy you are having these hearings today.

Senator KENNEDY. Fine.

At this point, we will insert for the record a copy of S. 2538 and S. 2360.

[The bills referred to follow:]

94TH CONGRESS
1ST SESSION

S. 2538

IN THE SENATE OF THE UNITED STATES

OCTOBER 21, 1975

Mr. KENNEDY introduced the following bill; which was read twice and referred to the Committee on Labor and Public Welfare

A BILL

To enact the National School-Age Mother and Child Health Act of 1975.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National School-Age Mother and Child Health Act of 1975".

FINDINGS AND DECLARATION OF PURPOSE

SEC. 2. (a) The Congress finds that—

(1) pregnancy among adolescents is a serious and growing problem;

(2) such pregnancies are a leading cause of school dropout, familial disruption and increasing dependency upon welfare and other community resources;

II

(3) the children of adolescent mothers are often at high risk during their early years, leading to increased infant morbidity and mortality; and

(4) health, education, counseling, and other social services to assist adolescent mothers who choose to bear their children are often inadequate, disorganized, and fragmented.

(b) The purpose of this Act is to—

(1) strengthen family life by encouraging the provision and coordination of comprehensive health, education, psychological, and other social services to adolescent parents and their children (such as job and vocational training and placement and care for the infants and children of adolescent parents) thereby providing a meaningful alternative to abortion;

(2) encourage coordination and improvement of existing services, as well as the provision of new services where necessary;

(3) reduce the growing number of adolescent pregnancies by encouraging family planning and reduce the growing number of school dropouts by encouraging adolescent parents to complete their education; and

(4) improve the health and parenting capabilities of adolescent parents, in order to maintain the integrity of

families and to reduce illness and abuse the children now associated with adolescent parenthood.

SEC. 3. Title III of the Public Health Service Act (42 U.S.C. 201) is amended by adding after section 319 the following new part:

"PART C—COMPREHENSIVE SERVICES FOR SCHOOL-AGE GIRLS, THEIR INFANTS AND CHILDREN

"FORMULA GRANTS TO STATES FOR COMPREHENSIVE SERVICES FOR SCHOOL-AGE GIRLS, THEIR INFANTS AND CHILDREN

SEC. 320. (a) The Secretary is authorized and directed to make grants, from allotments made under subsection (b), to meet part of the costs to designated States agencies to assist in planning, establishing, maintaining, coordinating, and evaluating programs for comprehensive services for school-age girls, their infants and children in accordance with section 320A. No grant may be made to a designated State agency under this section unless such agency has submitted, and had approved by the Secretary, a State plan for a coordinated and comprehensive program in accordance with section 320A.

"(b) The sums appropriated to carry out the provisions of the section shall be allotted to the States by the Secretary on the basis of the population, financial need, and number of live births to school-age girls per population in the calendar year 1973 of the respective States.

"(c) For the purposes of this section, the term 'State' includes the Commonwealth of Puerto Rico, Guam, American Samoa, the District of Columbia, and the Trust Territory of the Pacific Islands.

"STATE PLANS FOR COMPREHENSIVE SERVICES FOR SCHOOL-GIRLS, THEIR INFANTS AND CHILDREN

"SEC. 320A. In order to be approved for purposes of this subsection, a State plan for comprehensive services for school-age girls, their infants and children must—

"(a) designate, or provide for the establishment of, a designated State agency as the sole agency for administering or supervising the administration of the State's program under the plan;

"(b) contain satisfactory evidence that the designated State agency will have authority to carry out such plan in conformity with this part;

"(c) (1) provide for the establishment of a State advisory council on comprehensive special services for school-age girls, their infants and children, which shall include representatives of State health, education, and social service agencies and other appropriate local agencies and nongovernmental organizations and groups. The council shall advise the designated State agency in carrying out its functions under the plan, to assure the coordination of services provided by the health, education, social service, and voluntary agencies, and to approve the State plan prior to its submission to the Secretary;

"(2) in selecting membership for the categories of representation in this paragraph, emphasis shall be placed on choosing individuals from day care and child care services, nursing, law, ethics, social services, individuals with expertise in the physical and emotional development of infants and children, and parents who have worked in appropriate organizations in the community;

"(d) set forth policies and procedures for the expenditure of funds under the plan, which, in the judgment of the Secretary, are designed to assure effective continuing State planning, evaluation, and delivery of services (both public and private) for school-age girls, their infants and children;

"(e) provide for cooperative efforts among governmental or nongovernmental agencies, organizations, and groups concerned with special services for school-age girls, their infants and children, and for cooperative efforts between such agencies, organizations, and groups in the fields of health, education, and welfare;

"(f) provide such methods of administration (including methods relating to the establishment and maintenance of personnel standards on a merit basis, except that the Secretary shall exercise no authority with respect to the selection, tenure of office, and compensation of any individual employed in accordance with such methods) as are found by the Secretary to be necessary for the proper and efficient operation of the plan;

"(g) provide that the designated State agency will make such reports, in such form and containing such information as the Secretary may from time to time reasonably require, and will keep such records and afford such access thereto as the Secretary finds necessary to assure the correctness and verification of such reports;

"(h) provide that the designated State agency will from time to time, but not less often than annually, review its State plan approved under this subsection and submit to the Secretary appropriate modifications thereof;

"(i) define the extent of the problem, the services currently being provided, the deficiencies in the provision of services, and steps planned to organize, coordinate, and provide comprehensive statewide services directly and through agreement with other agencies;

"(j) (1) set forth policies and procedures to assure that the names and any other identifying information of persons receiving services under these programs shall not be submitted to or collected by the Federal Government, State government, and by any individual or organization other than (A) the program actually delivering the services; and (B) third-party payers and in such cases not without the prior informed consent of the individual or the individual's legal guardian;

"(2) set forth policies and procedures to assure that the names and any other identifying information of persons receiving services under these programs, which are disclosed to third-party payers, are kept strictly confidential and are not further disclosed;

"(k) include and provide for the origination, continuation, extension, and improvement of the following services, but not limited to, directly or through cooperative agreements—

"(1) comprehensive health care to school-age girls associated with the continuation of pregnancy, including but not limited to—

"(A) tests for pregnancy;

"(B) screening and diagnosis and treatment of all prenatal and postnatal conditions, including nutritional deficiencies, for a period of one year after birth; and

"(C) referrals when appropriate to other agencies for treatments not covered under this section;

"(2) comprehensive health care to infants and children of school-age girls during infancy and preschool years, including but not limited to—

"(A) comprehensive health care, including but not limited to, neonatal intensive care;

"(B) medical examinations;

"(C) diagnosis and screening of—

"(i) nutritional deficiencies,

"(ii) visual and hearing defects,

"(iii) mental retardation and learning disorders,

"(iv) crippling and handicapping conditions, and

"(v) catastrophic illness;

"(D) referrals when appropriate to other agencies for services not covered under this section;

"(3) health education;

"(4) community outreach and information services;

"(5) family planning services and counseling;

"(6) continuing education of mothers (including vocational training and assistance in locating employment);

"(7) counseling for the mother and father of the child and the appropriate families;

"(8) infant and child day care;

"(9) adoption and foster care services;

"(10) a coordinated program of social services, including educational, vocational, legal, ethical, social, counseling, and referral services (including adoption counseling) designated for school-age girls until the agency finds that the services are no longer necessary; and

"(11) appropriate services for infant and child abuse and neglect.

"(l) provide assurances that each and every program has made or will make and will continue to make every reasonable effort to collect appropriate reimbursement for its costs in providing health services to persons who are entitled to insurance benefits under title XVIII of the Social Security Act, to medical assistance under a State plan approved under title XIX of such Act, or to assistance for medical expenses under any other public assistance program or private health insurance program; and "(m) total evaluation of individual needs—medical, nutritional, social, educational, and psychological with management protocol.

"CONFIDENTIALITY

"SEC. 320B. The names and other identifying information of persons receiving services under these programs shall not be submitted to or collected by the Federal Government, State government, and by any individual or organization other than (1) the program actually delivering the services, and (2) third-party payers, and in such case not without the prior informed consent of the individual or the individual's legal guardian.

"VOLUNTARY PARTICIPATION

"SEC. 320C. The acceptance by any individual of family planning services or family planning or population growth information (including educational materials) provided through financial assistance under this title (whether by grant or contract) shall be voluntary and shall not be a prerequisite to eligibility for or receipt of any other service or assistance from, or to participation in, any other program of the entity or individual that provided such service or information.

"MAINTENANCE OF EFFORT

"SEC. 320D. Applications for grants under this part may be approved by the Secretary only if the application contains or is supported by reasonable assurances that the grants will not result in any decrease in the level of State, local, and other non-Federal funds for services for school-aged girls, their infants and children, and training of persons to provide such services which would (except for such grant) be available to the applicant, but that such grants will be used to supplement and, to the extent practicable, to increase the level of such funds.

"AUTHORIZATION

"SEC. 320E. There are authorized to be appropriated to carry out the purposes of sections 320 and 320A of the Act $30,000,000 for the fiscal year ending June 30, 1976, and for each of the next two succeeding fiscal years.

"COORDINATION; REPORTS

"SEC. 320F. There is hereby established within the Maternal and Child Health Service, hereinafter referred to as 'Service', of the Department of Health, Education, and Welfare an identifiable unit to administer, evaluate, and coordinate the program established by this part. The Service shall submit an annual report to the Secretary which shall include, but not be limited to, suggested modifications to increase and improve the program. The Service shall submit to each designated State agency on at least an annual basis reports on the status of all programs receiving Federal funds under section 320 of this Act.

"DEFINITIONS

"SEC. 320G. For purposes of sections 320 and 320A the term—

"(a) 'school-age girls' means any pregnant female of primary and secondary school age without regard to marital status; and

"(b) 'designated State agency' means a public or private nonprofit entity which is designated by the Governor of a State to carry out the purposes of sections 320A, 320B, 320C, and 320D of this Act.".

SEC. 4. Parts C, D, E, F, G, H, I, J, and K of Public Health Service Act, as in effect the day before the date of enactment of this Act, are redesignated as parts D, E, F, G, H, I, J, K, and L, respectively.

94th CONGRESS
1st Session

S. 2360

IN THE SENATE OF THE UNITED STATES

September 17 (legislative day, September 11), 1975

Mr. Bayh introduced the following bill; which was read twice and referred to the Committee on Labor and Public Welfare

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A BILL

To amend the Public Health Service Act to provide health care services for pregnant adolescents before and after childbirth.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Life Support Centers Act of 1975".

Sec. 2. Title III of the Public Health Service Act (42 U.S.C. 201) is amended by adding after section 319 the following new section:

"SPECIAL SERVICES FOR ADOLESCENTS

"Sec. 320. (a) The Secretary is authorized and directed to make grants to health agencies of any State (or political subdivision thereof) or any other qualified nonprofit agency,

II–O
★(Star Print)

institution, or organization (with the approval of the State agency) for originating, continuing, extending, or improving programs involved in the provision of—

"(1) necessary health care to prospective adolescent mothers, including but not limited to—

"(A) tests for pregnancy,

"(B) screening, diagnosis, and treatment of all prenatal and postnatal conditions, including nutritional deficiencies for a period of one year after birth; and

"(C) referrals when appropriate to other agencies for treatments not covered under this section;

"(2) necessary health care to infants of adolescent mothers during their preschool years, including but not limited to—

"(A) medical examinations,

"(B) diagnosis and screening of—

"(i) nutritional deficiencies,

"(ii) visual and hearing defects,

"(iii) genetic birth disorders,

"(iv) mental retardation and learning disorders,

"(v) crippling and handicapping conditions, and

"(vi) catastrophic illness,

"(C) referrals when appropriate to other agencies for services not covered under this section;

"(3) family planning services;

"(4) a coordinated program of social services including educational, vocational, legal, social, counseling, and referral services (including adoption counseling) designed for adolescent mothers for the period extending to the point in time that the agency finds that parent and child are capable of caring for themselves; and

"(5) funds to purchase adoption services (approved by the Secretary) for adolescent mothers participating in a program established under this section who are considering the placement of their children in adoptive homes.

"(b) The Federal share of assistance to programs under this section shall not exceed 75 per centum of the cost of such program.

"(c) (1) Applications for grants under this section shall be made in such form and contain such information as may be required by the Secretary.

"(2) The Secretary shall approve only those applications which—

"(A) provide that the project for which assistance is sought will be administered by or under the supervision of the applicant, "(B) set forth such fiscal controls and fund accounting procedures as may be necessary to assure proper disbursement of and accounting of Federal funds,

"(C) provide assurances that it will employ professionals skilled in maternal and child health, public health services, nutrition, and social services,

"(D) provide for cooperation with the State agency administering or supervising the administration of the State plan approved under title XIX of the Social Security Act in the provision of care and services, available under a project, for recipients eligible for such a plan approved under such title XIX, and

"(E) provide for the coordination of health and social services provided by the project with, and utilization (to the extent feasible) of, Federal, State, or local health, welfare, and education programs.

"(d) Payments under this section may be made in advance or by way of reimbursement, and in such installments, as the Secretary may determine.

"(e) Nothing in this section shall be construed to require any project receiving financial support to compel any person to undergo any medical screening, examination, diagnosis, or treatment or to accept any other health care or services provided under this section for any purpose, if such person or his guardian objects.

"(f) No individual shall be required as a condition precedent for the receipt of assistance under this Act or any other law to participate in programs established or assisted by Federal funds unless such individual has given their informed consent to such participation.

"(g) There are authorized to be appropriated to carry out the purposes of this section $30,000,000 for the fiscal year ending June 30, 1976, and for each of the next two succeeding fiscal years.".

Senator KENNEDY. Our first witnesses today will be representatives from the Department of HEW.

I understand Dr. James Dickson, Acting Deputy Assistant Secretary for Health, will not be with us.

The statement will be read by Mr. Dale Sopper, Acting Assistant Secretary for Legislation.

Good morning.

Would you identify your panel, please.

STATEMENT OF DALE SOPPER, ACTING DEPUTY ASSISTANT SECRETARY FOR LEGISLATION (HEALTH), DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, ACCOMPANIED BY DR. LOUIS HELLMAN, DEPUTY ASSISTANT SECRETARY, OFFICE OF POPULATION AFFAIRS, U.S. PUBLIC HEALTH SERVICE; DR. CHARLES LOWE, SPECIAL ASSISTANT FOR CHILD HEALTH AFFAIRS, U.S. PUBLIC HEALTH SERVICE; AND DR. ROBERT VAN HOEK, ACTING ADMINISTRATOR, HEALTH SERVICES ADMINISTRATION, U.S. PUBLIC HEALTH SERVICE

Mr. So[illegible]r. Thank you, Mr. Chairman.

If I ma[illegible] would like to identify the other members with me from the Depa[illegible].

On my le[illegible] Dr. Robert Van Hoek, Acting Administrator of the Health Services Administration.

On my right is Dr. Louis Hellman, Deputy Assistant Secretary for Population Affairs, U.S. Public Health Service.

On my right is Dr. Charles Lowe, Special Assistant for Child Health Affairs, Office of the Assistant Secretary for Health for HEW.

If I may, Mr. Chairman, I would like to read portions of our opening statement.

Senator KENNEDY. We have your statement.

We will have it printed in its entirety.

I want to indicate that I have both the privilege as well as the responsibility to listen to a lot of testimony.

I think anybody who appears before our committees ought to have sufficient awareness and comprehension about the particular matters which they are talking about, so that they can summarize, emphasize, respond to questions on any of the matters. Otherwise they really have no business being before the committee.

I think it is always valuable to get the testimony so we can get the specific details, and have the staff consider any of the changes and operations required.

That is enormously valuable.

There are some important policy considerations that we will be examining and we want to get right to those.

I am going to let you proceed, but I hope that you would highlight it and summarize it, and we will print it in its entirety.

I must say I have had a chance to review it, and I hope you are going to be personally more convincing than your testimony.

I want to be very frank about it.

It seems to me you listed the various kinds of programs which have been passed by the Congress, that may or may not have been useful to achieve the thrust of the legislation that is before the committee today. You indicate that there really is not a problem.

I am familiar with most of these programs and I am not really interested in just listening to them thrown back to me.

I want you to be very precise and exact when you go through your testimony, in telling precisely what these programs are doing in focusing on this particular problem.

We are not interested in just a litany of these programs as we see in the second half of your testimony.

I would hope on pages 16 and beyond, that when you talk about the child and maternal care programs and emphasize those programs, that you are going to tell us why the cutbacks that are coming in the administration's program next year are not going to cut whatever you might feel is an effective effort by these programs in meeting these problems now.

We are going to be facing serious cuts. If you are not, let us know that, too.

You are going to be relying on the programs that are being cutback in the first place, and are going to be cutback even more the next time.

So I am hopeful you will be as precise as you possibly can when you go through these areas.

I will ask you to proceed in your own way.

I want to indicate to you I have had a chance to go through your testimony.

I am sure you will probably elaborate on it.

Mr. SOPPER. In view of that, Mr. Chairman, I think I will focus on our introduction and then our statement on the legislation, rather than recite a litany of existing departmental activities.

Senator KENNEDY. On the top of page 2, you say there is no accurate estimate of the number actually in need of the type of care that could be provided, and then you said the program is not needed.

If you do not know what the accurate estimate is, I begin to wonder about the rest of the testimony, when you say it is not needed.

Then you indicate all the things you are doing on it.

That, quite frankly, troubled me as an opener.

Why not start and do the best you can, though.

Mr. SOPPER. I am pleased to appear before you today to present our views on S. 2538, a bill which would establish another special formula grant program under the Public Health Service Act for States to provide part of the cost of establishing and operating programs for the comprehensive care of pregnant school-age girls and their children, as well as our views on S. 2360, which would promote similar objectives through direct grants to State agencies and to other nonprofit organizations.

At the outset, let me emphasize, Mr. Chairman, that the Department is concerned about the problems of early, and often unwanted, and unintended pregnancy in teenaged girls, and we fully realize the need for adequate health care, including nutrition, and such social services as child care and job placement assistance for young mothers.

However, we are unable to support either S. 2538 or S. 2360. The administration has committed itself to financing these health services through medicaid and social service programs on a needs basis. These bills would provide additional narrow categorical programs which duplicate existing departmental authorities and programs that already address the problem of teenage pregnancy; moreover, they would require additional funding at a time when the national need and the

President's policy is to reduce the growth of Federal expenditures and lower budget deficits.

There is no accurate estimate of the number actually in need of the type of care that could be provided through S. 2538 and S. 2360, that is, those mothers and children who are not already receiving care under departmental direct service or financing programs, or through any number of private providers and State and charitable organizations.

We believe a more efficient use of scarce Federal health dollars can be made in keeping with the Department's ultimate objective of a comprehensive health care system.

Within that framework, the promotion of family planning service on a needs basis, particularly through medicaid and social services, offers much more potential than the addition of one more categorical program.

BACKGROUND

Teenage pregnancy is both a social and health problem. The problem of teenage pregnancy poses a tremendous challenge to the health care system, first, because of the age of the persons involved, and second, because the infants of teenage pregnancies are at higher risk of low birth weight, and impairments in physical, mental, and emotional development.

Sexuality, pregnancy and even more delicate, the emotional and psychological aspects of wanting and needing a child, leave us with an inadequate, incomplete understanding of the many dimensions involved in teenage pregnancies. But we are struggling with the question of how do we best assist teenagers in handling their sexuality, emotional needs, and responsibilities. We must face the fact that programs, unless well planned and executed by warm, sensitive, nonjudgmental staff, can "turn off" teenagers rather than assist them. Launching programs with such precision requires careful planning and implementation.

Consequently, the Department will continue its emphasis on providing counseling, health education, and a full range of health services to the mother and infant.

Beginning on page 3, Mr. Chairman, we go into describing programs which deal with pregnancy of teenagers and their related health care.

We discuss activities of the family planning program, title X. Of the 2.2 million patients served in programs receiving title X funds in fiscal 1975, 29 percent, or approximately 600,000 were age 19 or less. All of these services, of course, are voluntary.

Senator **KENNEDY**. As you are aware that, in the maternal and infant care projects, the President's budget for appropriations cut those programs by $54 million, from its 1975 level of $266 million to $212 million in 1976.

Even the program you are relying on now is being further diminished, and I think we are going to see—I may be wrong, I hope I am—further reduction next year.

Could you just comment on this point?

You mention so many projects for maternal and infant care are in the works.

Can you tell us what those are?

Mr. **Sopper.** I think Dr. Van Hoek, who administers those projects, can respond.

Dr. **Van Hoek.** Mr. Chairman, there are two aspects of effort that we are engaged in in dealing with the problems of teenage pregnancies.

One is the maternal and child health program, and the other is the family planning program.

In the family planning program, there have been specific efforts to develop information counseling programs, making teenagers aware of the availability of family planning services in their communities.

Similarly, we have developed training programs to make the professionals involved in family planning services more aware and more knowledgeable about providing services to teenagers.

In the area of maternal and child health, there have been special efforts and special programs developed through a consortia of interested professionals in developing special programs.

Some of those where described in the monograph by Dr. Jekel and others, such as projects in ~~Boston and~~ the District of Columbia.

These projects were geared to integrating the services provided by educational institutions, the school systems, the maternal and child health programs, the social service programs, the day care centers, and vocational training programs, so that the teenagers could continue their education and be in a position to raise their children.

Senator **Kennedy.** Under family planning, do they provide for services to mothers?

Dr. **Van Hoek.** Family planning services?

Senator **Kennedy.** Yes.

Dr. **Van Hoek.** Yes, sir.

They provide counseling and family planning services to the mothers who wish to choose family planning.

Senator **Schweiker.** Could you give us the present budget figures on those programs for 1974, 1975, and 1976?

I would be interested to know what has happened so far, not the congressional budget, but the President's budget, as far as it is concerned.

Dr. **Van Hoek.** For family planning, in the 1975 budget, and I will limit it just to services, not to training and research, the family planning services budget was $94.5 million.

The President's request for 1976 was $75,135,000.

The current estimate based on the House-Senate pending action is $94.5 million.

Senator **Schweiker.** Do you have the 1974 figure?

Dr. **Van Hoek.** The 1975 figure, as I recall, was the same, approximately $94.5 million.

Senator **Schweiker.** It is a drop of about $20 million?

Dr. **Van Hoek.** Yes, sir.

And in maternal and child health, again limiting it just to the budget which specifically provides grants to States, the 1975 budget was $202 million.

The President's budget was $147.2 million.

The current estimate being considered by Congress is back to $219 million.

Senator **Schweiker.** It is good that Congress is considering these or we would have a 20- or 30-percent cut across the board.

Dr. VAN HOEK. I would like to make a point with regard to the cuts. It was not the intent in submitting the President's budget for services to be reduced. It was rather an attempt that to the extent that the cuts were being made by the Federal Government for the State and local sources to make up the difference.

The subsequent experience has shown that that is not a realistic consideration.

Senator SCHWEIKER. That is a true statement. It never has been. We do it every day, the whole mental health program was supposed to work the same way. The local communities were going to pick it up and it never gets picked up.

This is one of the tragedies.

I am glad you made the last statement, so go ahead.

Mr. SOPPER. Dr. Hellman would like to make a comment.

Dr. HELLMAN. Senator Schweiker, Dr. Van Hoek's figures are accurate, but they do not encompass the whole picture.

Family planning moneys come from multiple sources. In addition to title X (PHS), moneys are available for family planning services under title V (MCHS), title XIX (Medicaid), and title XX of the Social Security Act. The estimated reduction in the President's budget will be something in the neighborhood of $30 million.

I would like to submit for the record a budget analysis that covers all of these points.

Senator SCHWEIKER. Of course, they are trying to cut the medicaid budget, too.

Dr. HELLMAN. The estimated medicaid expenditures for family planning services for fiscal year 1976 are slightly higher than in fiscal year 1975, but funds for family planning services under title V of the Social Security Act are considerably less.

Senator BEALL. What is the total amount of money you are talking about, then, Doctor, as opposed to $177 million previously mentioned?

Dr. HELLMAN. The $147 million previously mentioned was for maternal and child health services. The DHEW total for family planning services in fiscal year 1976 is $197 million, which is $30 million less than the $227 million available in fiscal year 1975.

Senator BEALL. Compared to $90-some million that you were——

Dr. HELLMAN. That is title X of the PHS Act.

Senator BEALL. He is talking about $90 million.

Dr. VAN HOEK. $94 million.

Senator BEALL. You are talking about a total of $140-some million?

Dr. HELLMAN. I am talking about all the Federal funding that goes into family planning.

Senator BEALL. Which is $140-some million——

Dr. HELLMAN. About a $30 million cut.

Senator BEALL. From the $140 million?

Dr. HELLMAN. I would like to submit this for the record because I am giving these off the top of my head.

Senator SCHWEIKER. I think that would be very good.

Senator KENNEDY. I think the bottom line is that there are significant cuts in these programs which you have been testifying to.

I anticipate that we are going to see additional cuts next year. I think you ought to recognize that.

Senator **Beall.** As long as he is going to submit budget figures, I think it would be interesting to know what the States themselves are spending on these programs and to what extent they have increased or decreased their expenditures.

Senator **Kennedy.** Submit that also.

Dr. **Hellman.** Yes.

[The information referred to follows:]

Program	1971	1972	1973	1974	1975 (Est.)	1976 (Est.)
Total, Department of Health, Education, and Welfare and Office of Economic Opportunity	$92,034,000	$173,756,000	$195,479,000	$237,091,000	$227,115,000	$197,235,000
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (DHEW)						
Public Health Service						
Family Planning..................................	33,275,000[1]	96,656,000[2]	107,207,000[3]	149,491,000[4]	100,615,000[5]	79,435,000
Maternal and Child Health						
Formula Grants to States......................	11,700,000	11,700,000	11,700,000	11,700,000	43,600,000	28,000,000
Project Grants for Maternity and Infant Care (MIC)...........................	4,500,000	4,500,000	4,500,000	4,500,000	---[6]	---
Total, Public Health Service.............	$49,475,000	$112,856,000	$123,407,000	$165,691,000	$144,215,000	$107,435,000
Social and Rehabilitation Service						
Social Services.................................	$12,300,000	$ 28,200,000	$ 38,872,000	$ 40,800,000	$ 46,900,000	$ 51,600,000
Medical Assistance............................	6,459,000	8,700,000	18,200,000	30,600,000	36,000,000	38,200,000
Total, Social and Rehabilitation Service..	$18,759,000	$ 36,900,000	$ 57,072,000	$ 71,400,000	$ 82,900,000	$ 89,800,000
Total, DHEW..............................	$68,234,000	$149,756,000	$180,479,000	$237,091,000	$227,115,000	$197,235,000
OFFICE OF ECONOMIC OPPORTUNITY (OEO)...............	$23,800,000	$ 24,000,000	$ 15,000,000	---	---	---

[1] Project grants under Title V of the Social Security Act (SSA).

[2] Includes $27 million for project grants under SSA Title V and $69,656,000 for project grants and contracts under Title X of the Public Health Service (PHS) Act.

[3] Includes $19 million for project grants under SSA Title V and $88,207,000 for project grants and contracts under PHS Act Title X.

[4] Includes $19 million for project grants under SSA Title V and $120,491,000 for project grants and contracts under PHS Act Title X. Also includes $15 million previously administered by the Office of Economic Opportunity and $30 million authorized under the FY 1973 continuing resolution, released for obligation in FY 1974.

[5] All under PHS Act Title X. Effective June 30, 1974, SSA Title V project grants were folded into formula grants, as provided by law. Includes $409,000 authorized under the FY 1973 continuing resolution, obligated in FY 1975.

[6] Effective June 30, 1974, SSA Title V MIC project grants were folded into formula grants, as provided by law.

Estimated State and Local Funding for Organized Family Planning Services - FY 1975
(In thousands)

Region or State	Non-Federal
Region I Total	$964
Connecticut	106
Maine	53
Massachusetts	519
New Hampshire	72
Rhode Island	62
Vermont	152
Region II Total	9,468
New Jersey	1,596
New York	5,778
Puerto Rico	2,029
Virgin Islands	65
Region III Total	2,686
Delaware	188
District of Columbia	348
Maryland	630
Pennsylvania	1,051
Virginia	320
West Virginia	149
Region IV Total	4,064
Alabama	190
Florida	520
Georgia	948
Kentucky	492
Mississippi	164
North Carolina	357
South Carolina	879
Tennessee	514
Region V Total	8,889
Illinois	3,596
Indiana	856
Michigan	2,184
Minnesota	306
Ohio	1,225
Wisconsin	722

Region or State	Non-Federal
Region VI Total	$5,942
Arkansas	396
Louisiana	1,500
New Mexico	153
Oklahoma	634
Region VII Total	2,033
Iowa	496
Kansas	299
Missouri	936
Nebraska	302
Region VIII Total	519
Colorado	349
Montana	65
North Dakota	35
South Dakota	46
Utah	4
Wyoming	20
Region IX Total	3,123
Arizona	351
California	2,493
Guam	10
Hawaii	112
Nevada	157
Region X Total	842
Alaska	123
Idaho	125
Oregon	409
Washington	185

Mr. Sopper. Mr. Chairman, in addition to direct service and grant-supported programs of the Department, programs under titles XIX and XX of the Social Security Act are available to finance maternity, medical, social services, and family planning services through private physicians and other sources for eligible teenagers.

Those eligible for medicaid coverage include children who are members of families receiving aid to dependent children, or who are covered by a State's medically needy program. The groups eligible for coverage at State option under Federal law include all individuals under 21 who meet the State income and resource standards, even if they do not meet the definition of dependent child under the State's AFDC program.

Every medicaid program must cover at least the following mandatory services: Inpatient hospital care, outpatient hospital services, other laboratory and X-ray services, skilled nursing facility services, and home health services for individuals 21 or older, early and periodic screening, diagnosis, and treatment for individuals under 21, family planning, and physicians' services. States must provide all those medical services generally associated with prenatal child care.

Optional services that States can provide include clinic services, available in 41 States; prescribed drugs, available in 50 States; and emergency hospital services, available in 43 States.

The early and periodic screening, diagnosis, and treatment program (EPSDT) of medicaid is a major initiative among the Department's health activities. The purpose of EPSDT is to identify and treat handicapping or potentially handicapping conditions early, before they become severe or irreversible problems. To date, under EPSDT, over 3 million children have received screening services.

On October 1 of this year, all States and the District of Columbia began to operate social service programs under the authority of the recently enacted title XX of the Social Security Act. This law, which supplants the previous authority for services contained in titles IV–A and VI of the act, provides Federal funds to meet 75 percent of the cost of services (90 percent for family planning) furnished to eligible persons.

Services under title XX are not prescribed by the Federal Government. Rather, each State determines the services it will provide, so long as they are consistent with one or more of five goals set forth in the law: Achieving or maintaining self-support; achieving or maintaining self-sufficiency; preventing or remedying abuse, neglect, and exploitation of children and adults; preventing or reducing inappropriate institutional care; and securing admission for institutional care when this is necessary.

No longer is entitlement to services limited to the status of persons as current, former, or potential recipients of financial assistance, as was true in the past. The law provides that services may be furnished to individuals or families with income up to 115 percent of the median income in the State, provided that a fee reasonably related to income is charged to those whose income exceeds 80 percent of the median income. States may, however, set lower eligibility levels if they choose.

Under title XX, the citizens of each State play a major role in determining the content and coverage of the State's annual service plan. At least 90 days before the beginning of the program year, the State must publish a proposed plan, based on a needs assessment, which describes the services to be provided and the types of persons eligible to receive them, by geographic area. After a comment period of at least 45 days, the final plan is prepared and published, with an explanation of any changes from the proposed plan that were made. Thus, ample opportunity is afforded for consideration of the needs of all groups, including school-age mothers and their children.

The bills specify a number of services for which Federal funds are available under title XX. These include family planning services and counseling; counseling for the mother and her family and the father of the child; infant day care; adoption and foster care services; a coordinated program of social services, including educational, vocational, legal, social, counseling, and referral services (including adoption counseling); and services related to child abuse and neglect. To a limited degree, the same services are also available under title IV–B which covers the child welfare service programs.

Office of Education: There is no specified Federal authorizing legislation in the educational field providing resources solely for school-age parent and related programs.

Department position: We feel that these bills are objectionable on several grounds.

Under present MCH requirements, each State must establish or maintain at least one maternity and infant care project, and one children and youth project. These are intended as models for further development within the State programs. Within the total formula grant allotment to States under MCH, each State must spend additional moneys on programs which they determine as the highest priority.

If a closer inspection of the problem of adolescent pregnancy reveals the need for increased emphasis within the State, the Department would work with States and State health departments to encourage them to devote a greater proportion of their Federal and State resources to this area.

The bills under consideration would not allow free choice of program and priority decisions to be made by States.

Senator Schweiker. Do you have any figures on what the States are spending in terms of abortion versus prenatal and postnatal care?

I think the obvious question is, it is a lot cheaper for a State to go the abortion route than to go the prenatal and postnatal care route.

If you are going to throw it back to the States, which seems to be your objective, it seems to me you are throwing it on a one-sided basis, just because it is cheaper for a State to go the abortion route than to go the prenatal and postnatal route.

I wonder if you either had any figures now to show what amount of pickup the States will have in abortion versus what amount of pickup the States have in postnatal and prenatal care.

Mr. Sopper. I don't believe we have any specific figures available, although I think Dr. Hellman has some figures we might be able to present for the record.

Dr. Hellman. I have some figures for the record that were taken from 21 States where we know what happened.

Senator Schweiker. I think it would be good to have a picture of what has happened.

Dr. **Hellman.** Abortion costs about $180.

Senator **Schweiker.** Versus what would you say the rest of it costs?

Dr. **Hellman.** The figure we used 2 years ago was $1,200 for delivery, and 1 year of care, and this has gone up significantly. It must be much closer to $2,000. For each pregnant medicaid eligible who chooses to carry her pregnancy to term, the annual additional Federal, State, and local costs of maternity and pediatric care and public assistance for the first year of the child's life would be approximately $2,200.

Senator **Schweiker.** And as a minimum, you are talking a difference of $180 versus $2,000?

Dr. **Hellman.** Yes.

Senator **Schweiker.** I think this would be helpful.

Mr. **Sopper.** Even assuming the addition of the projects being proposed, the problem of access to care for many teenagers may be caused by a lack of accessibility to a clinic site, or a lack of knowledge, or emotional barriers which prevent a pregnant teenager from seeking or receiving services. A better approach, we believe, would be increased emphasis on the use of existing programs and the social services and financing mechanisms of medicaid in cases in which persons are unable to pay for their own care.

This is not to say that existing programs have no need for improvement. For example, within the office of the assistant secretary for planning and evaluation of this Department, a study is underway to determine how best to reach teenagers in need of family planning services, and to make them more knowledgeable about services which are available and funding mechanisms which exist for payment for care. We need to work with States to remove restrictive State medicaid and social services regulations for care to single teenagers where these exist. This will require increased effort within existing resources in public information and education and increases in the regional office and State communication regarding restrictive State requirements.

For example, Federal regulations governing family planning services under the MCH program require that projects make their services available to all people desiring these services. However, where State laws define the age of consent for medical or contraceptive services, we do not, of course, require that those laws be violated.

In all federally subsidized clinics unemancipated minors requesting contraceptive services are encouraged to consult with their parents. As you are aware, however, many parents will not accept the fact that their teenager may be sexually active, and view availability of family planning services to adolescents as promoting promiscuity.

Many of the family planning medical and social services are subsidized under title XX of the Social Security Act. Determination of eligibility under title XX, however, must be supported by financial documentation. This raises the issue of confidentiality since minors would in most cases not have access to this information without parental knowledge. Hence, this requirement is currently viewed as a deterrent even to minors from eligible families receiving services under title XX. The removal of these and other accessibility barriers is currently being addressed by Department programs.

I would like to reemphasize that it is important that we not try to solve each new or emerging problem by the establishment of a separate new program directed specifically to it. At this time when economic pressures are so great, we should make an extra effort to use already existing programs which were designed to meet such problems, to increase the effectiveness of our ongoing efforts, or, where necessary, to develop within these programs new approaches to meet new or emerging problems.

With respect to the freedom of choice issue, the department recognizes that decisions on whether to have intercourse or not to have intercourse, to use or not to use contraceptives, to continue or terminate pregnancies, to keep or not to keep a child, are issues of free choice for each individual. The role of the Department is to assure that women in need have enough resources to make educated decisions along the way.

The challenge is now to reach women to offer them the assistance and guidance to make decisions, and to encourage them to continue in a system of adequate health care. We question whether S. 2538, in particular, would allow for this degree of freedom.

Finally, I submit that S. 2538 particularly is dependent upon the States being able to undertake a major administrative burden on top of their administration of the program of projects under maternal and child health. We believe the assumption that the authorization of large sums is sufficient to ameliorate this or any similar problem is open to serious question.

Other features to which we object are the requirements for further State plans and for an advisory committee and for reports to Congress already required by most of the programs we have discussed.

CONCLUSION

We think the suggestions we have outlined above in this testimony of (1) increased emphasis on family planning education for teenagers, both male and female, (2) continuing the ongoing effective programs for providing and financing health care for services within the MCH program, (3) working with States where necessary to obtain an increased recognition of this problem and an increase of resource commitment by the State, (4) increasing public information and education regarding the source and availability of health services, (5) working with States to remove restrictive barriers to the receipt of services by teenagers under State and medicaid and social service programs, and (6) the development of a solution within the framework of a comprehensive health care system, is an effective approach to the increasing problem of teenage pregnancies.

The Department expects to meet this challenge through marshaling and directing existing resources in a way that will also encompass other emerging problems, even at a time when we must also be especially concerned with conserving limited resources.

Mr. Chairman, this concludes our remarks.

We will be pleased to try to answer any questions that you may have.

Senator KENNEDY. Thank you very much.

You have listed an impressive array of programs that may have or could have some kind of impact on this problem.

The fact of the matter is, and I think we are going to hear this from the panel later on this morning, that these programs just are not meeting the particular problem.

You list the various programs in education.

I do not know how you would expect some teenage child to be able to understand part F of the Adult Education Act, title III of the Vocational Education Act, or Indian Education Act, part A, Appeal 93-8380, part C, Educational Innovation—to walk through this kind of maze of the various kinds of programs and be able to take some kind of advantage of it. After you have indicated, one, your opposition to it and, two, that you have got programs that are addressing the problem, the fact of the matter is that the problem as I understand it is becoming more serious. The numbers are increasing and the situation, in terms of these young people, is becoming much more critical.

I would like for you to comment on why you believe that, having listed this array of different programs, you think the problem is getting easier or getting better.

Tell us what your information is.

I think we are going to hear from people out on the firing line that it is getting much more serious and much graver, and that the programs that you have listed here are woefully inadequate in dealing effectively with the problem. They are scattered lists of programs that do not have the focus and direction that is essential to meet this particular issue, and do not have the kind of sensitivity to the problem which is really going to make a difference.

If I am wrong in that assumption, I would like to hear your reasons why I am wrong.

Mr. SOPPER. I do not believe we are saying, Mr. Chairman, that there is not a problem.

You cited some of the appropriation authorizations in the education area. Those are funding sources.

But when you get down to the local level, those are not the programs through which an individual would have to wind their way through. Those are just sources of funding, for example, where the school district usually provides counseling and assistance to teenagers who found themselves in this situation.

I would like to say that we do recognize that this is a problem.

The Assistant Secretary for Health, Dr. Cooper, recently directed Dr. Hellman and Dr. Lowe to try to examine the problem in more detail and recommend how our existing programs could be more effective in meeting the problem of teenage pregnancy.

I think Dr. Hellman and Dr. Lowe can comment on what we have been doing to date in that area.

Dr. LOWE. Mr. Chairman, first I would like to say that the description of the problem included in the bill and certainly in your statement before the Congress is very accurate, to my way of thinking, and a clear documentation of the issue.

My concern is whether the issue is properly approached by providing funds which deal with an end result of teenage sexuality or whether perhaps an approach which deals in a broader context might not in the long run serve the Nation more effectively.

Senator KENNEDY. I do not understand that answer.

Dr. LOWE. Pardon me?

Senator KENNEDY. I do not understand your answer.

Dr. LOWE. Perhaps I could put it another way.

The problems that you have identified are probably most easily examined under three headings. There are health issues; there are social issues; and there are educational issues related to preparation for renumerative activity in later life.

I find myself unaware of any study or combination of studies which provides convincing evidence that medical intervention during the pregnancy of a teenager predictably and unambiguously improves the health outcome of the infant. For example, the sharp increase we observe in low birth weight in infants, in girls from 15 and 16, carrying infants to term, has not so far yielded to medical intervention.

In this country last year, 16 percent of the children born to girls 15 or under weighed less than 2,500 grams at birth. We know that among this cohort of infants there is a high incidence of mental retardation and congenital anomalies. As a result, attempts have been made during the past 5 years to deal with this problem, for example, through nutritional intervention. However, I am not aware that nutritional intervention as a single adjuvant has proven successful in reducing the number of low-birth-weight infants. Although the frequency with which teenagers give birth to low-birth-weight infants decreases as they approach their 21st year, the initiation of prenatal cares does not appear to modify significantly the predictable performance of these girls.

The second problem which I perceive is——

Senator KENNEDY. Will you submit testimony that justifies that comment for us; would you be kind enough to give us what you have in HEW to justify that kind of statement?

Dr. LOWE. I would be glad to provide it for the record, Mr. Chairman.

[The information referred to and subsequently supplied for the record, follows:]

Study of Nutritional Intervention in Pregnancy

A variety of characteristics such as socioeconomic status, race, illegitimacy, age, parity and amount of prenatal care have been studied to determine the characteristics of women likely to deliver low birth weight infants. It is not clear what role each of these elements plays. Studies of large groups of pregnant women indicate that the provision of prenatal care predictably reduces the likelihood that a pregnancy will result in the birth of a low birth weight infant. Whether this outcome reflects general medical surveillance or the detection and treatment of such conditions as bacteriuria, toxemia, and diabetes, the results are unambiguous. The incidence of low birth weight infants is significantly lower among the general female population seeking care in the first and second trimester as compared with those receiving care only later in pregnancy.

Unfortunately the situation is not so clear when teenage mothers are considered. Three studies permit detailed examination of the relation between prenatal care and no prenatal care on the frequency with which these women delivered low birth weight infants. (1, 2, 3) The results are consistent with other less well-documented studies. The following observations emerge:

1. the provision of prenatal care results in some reduction in the frequency with which these women deliver low birth weight infants;
2. even with prenatal care the frequency with which these women deliver low birth weight infants in no instance approaches that of the general population;
3. in contrast to women over 20, no clear relation exists between the time when prenatal care is begun and a reduction in the frequency with which pregnancy results in the birth of a low birth weight infant.
4. the benefits of prenatal care are not achieved in teenage girls in pregnancies after their first.

These studies are consistent in indicating but by no means proving that very young women, as a group, are biologically too immature for effective childbearing. Prenatal care, no matter how comprehensive, appears unable to ensure the same prematurity rates sustained by older women.

(1) Klerman, L.V. and Jekel, J.F., School-Age Mothers: Problems, Programs and Policy, Hamden, Conn., Linnet Book, 1973.

Purpose

This study compared the health of infants born to women participating in a comprehensive program for school age mothers with extensive medical component to the health of two other groups of infants: one group born to women who attended a special program without an extensive medical component and another group born to women who did not attend a special program of any type.

Methodology

The following three groups of women and their infants were studied:

1. YMP (New Haven, Conn.) 180 women who attended a medically-based comprehensive program of education, medical and social services which emphasized close coordination and continuity of all services and personalized obstetric care.

2. IAS (Hartford, Conn.) 160 women who attended a social service-based program which included education, social work and nursing services and health education but which provided only routine obstetric care.

3. Control Group - 83 women who delivered at the Yale-New Haven Hospital from 10/1/63 to 3/31/65, before the initiation of the YMP program. No special program was available although they received medical care through the regular clinics of the hospital and homebound instruction and limited nursing and social services if requested.

   Women in all three groups were: 17 years of age or under; unmarried; residents of the city in which the program was located; and their pregnancies terminated later than the 20th week.

Clinical data was obtained from hospital records concerning the following three indicators of infant health status; (1) survival (hebodomal or fetal death or live baby); (2) birth weight; and (3) Apgar score. Similar data were also collected for subsequent infants born to women in the YMP group.

Results

1. On the basis of all three indicators, the health status of infants born to women participating in the YMP Program was significantly better than that of infants born to women in the control group and slightly better than those born to women in the IAS Program. Prenatal deaths occurred among 6% of the control group, 3.1% of the IAS group and 1.1% of the YMP group. Low birth weight infants were born to 11.7% of the YMP group, 15.7% of the IAS group and 20.5% of the control group. Unfavorable Apgar scores (less than 7 on a scale of 10) were characteristic of 5.5% of the YMP group, 8.7% of the IAS group, and 10.8% of the control group. These rates must be compared to the rate in women over 20 in which the national average of their infants in 1973 was 7.3%

2. The data indicated a positive relationship between poor infant health and parity, maternal infection, toxemia, vaginal bleeding and small weight gain. No significant relationship was found, however, between time and amount of prenatal care, other demographical variables besides parity, antepartum height or weight of the mothers and the health of the infant.

3. A signficant decline in health status occurred among subsequent infants born to women in the YMP program. (No data was available for the other groups). Nine perinatal deaths were reported among the 103 subsequent infants as compared to two deaths in the initial group of 180 YMP infants studied. The number of low birth weight infants increased from 11.7% in the first group of infants studied to 27.2% among subsequent infants. Low Apgar scores were twice as frequent among subsequent infants as they were among the first group of infants. The risk of a poor health outcome increased with parity and decreased attendance at prenatal clinics.

(2) Stine, O. and Kelley, E., " Evaluation of a School for Young Mothers, " Pediatrics 46(1970), 581-587.

Purpose

This study examined differences in morbidity and mortality among infants born to women attending a special program for school-aged mothers and those born to women who had not attended the special program.

Methodology

The Baltimore City Public School program for school-aged mothers provided such services as prenatal care, school lunches, supplemental milk, individual counseling and group discussions, and health education. In order to evaluate the impact of the program upon the health status of the infants born to women who participated in the program, birth certificates of children born to these women were matched with certificates of children of the same sex and race who were born to mothers of the same age and socioeconomic background who did not participate in the program. A total of 448 births to mothers 14, 15, and 16 years of age (224 control and 224 study) were studied.

Results

Based on the indicators discussed below, the health status of infants born to women who participated in the special program was better than the health status of infants born to women who did not participate in the program.

1. Birth Weight - The incidence of low birth weight was twice as high among infants in the control group (23.7%) as those in the study group (11.6%). This difference is most striking among those infants born to women 14 years old; 10.1% of the study group were low birth weight infants compared to 27.5% of the control group.

2. Length of Gestation - Within the study group, 22% completed a gestation period of less than 34.7 weeks as compared to 34% of the control group. When the indicators of birth weight and length of gestation were considered together, 71% of the study group, but only 54% of the control group, experienced both a birth weight of at least 2,500 grams and a gestation period of 37 weeks.

The incidence of low birth weight infants who were born after 37 weeks (low birth weight for gestation infants) was 5.4% among the study group and 10.7% among the control group.

3. Infant Mortality One infant death had occurred among the study group and 8 among the control group at the time of the study. Precise infant mortality data were not given because not all infants were at least one year old at the time of the study.

4. Prenatal Care - The data do not examine adequately the relation between prenatal care and no prenatal care and the frequency with with which these women delivered low birth weight infants since only 14 of the 448 women received no prenatal care. Among the small group receiving no care, only one woman delivered a low birth weight infant.

The relation between the trimester in which care is initiated and the frequency with which a woman delivers a low birth weight infant is unclear for both groups. Within the study group, the incidence of low birth weight infants decreases with later initiation of care (1st trimester - 13.0%, 2nd - 10.62% and 3rd - 6.3%), the obverse of the relation found within the general female population. Among the control group, the frequency is lowest for those who initiate care in the first trimester, 22.2%, rises to 26.3% among those initiating care in the second trimester and drops to 24.1% for those who delay until the third trimester.

In this study, as in others, the results are complicated by the assumption that chronological age means biological maturity. A subsequent study indicates that the number of years post menarche is a more satisfactory way to aggregate these subjects.* When pregnancy occurs at a time less than two years post menarche, it is not clear that provision of prenatal care has a significant effect on the frequency with which these women deliver low birth weight infants.

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*Erkan, K., Rimer, B., and Stine, O., "Juvenile Pregnancy, Role of Physiologic Maturity," Maryland State Medical Journal, March, 1970 50-52.

(3) Wiener, G. and Milton, T. "Demographic Correlates of Low Birth Weight, "American Journal of Epidemiology, 91 (1970), 260-272.

Purpose

This study examined the relationship between birth weight of the infant and gestation time and such factors as age, race, socioeconomic status, parity, marital status and the time at which prenatal care was begun.

Metholodology

Data were obtained from 100,277 certificates of live births occuring in Baltimore City during the period 1961-65.

Results

1. Although all factors examined (age, parity, etc.) were found to be related to birth weight and gestation time, race and the trimester in which the women first obtained care were found to be the most significant determinants of birth weight and gestation time.
2. With the exception of women 10-14 years of age, no statistically significant relation existed between a woman's failure to receive some type of prenatal care and an increase in the likelihood that she would deliver a low birth weight infant. Even with prenatal care, the frequency with which these women delivered low birth weight infants was never as low as it was among the general pregnant population.
3. Among younger women no clear relationship existed , as it did among the older population, between delay in initiating prenatal care and the subsequent delivery of a low birth weight infant. Among the age group 10-14, of those initiating prenatal care during the first trimester, 25.5% gave birth to low birth weight infants. The incidence of low birth weight infants dropped to 17.9% among women who delayed seeking care until the second trimester and rose to 32.7% among those not seeking care until the third trimester. Similar results occurred among the age group 15-16: the incidence of low birth weight was 16.2% among those initiating care within the first trimester, dropped to 15.3% among those who delayed until the second trimester, and rose to 18.1% when care was not initiated until the third trimester. This is in contrast to the experience of the total population of women over 20 years of age for whom the incidence of low birth weight infants rises steadily with each trimester's delay in initiation of care.

EVALUATION OF A SCHOOL FOR YOUNG MOTHERS

The Frequency of Prematurity Among Infants Born to Mothers Under 17 Years of Age, According to the Mother's Attendance of a Special School During Pregnancy

Oscar C. Stine, M.D., Dr. P.H., and Elizabeth B. Kelley, Sc.M.

From the Community Pediatric Center, University of Maryland, Baltimore

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ABSTRACT. Registration with a social agency, required attendance of prenatal care, a school lunch, supplemental milk, counseling, nutritional education, health education, group discussion, and self-government are elements of a public school program for teen-age mothers.

To study the health impact of this program, we located the birth certificates of children born to mothers who were 16 years of age and under and who attended the program. We matched these certificates with certificates of children of the same race and sex born to mothers of the same age living in similar socioeconomic census tracts who did not attend the school but who gave birth during the same period of time.

This gave us a study and control group totaling 448 births to mothers 14, 15, and 16 years old. We defined low birth weight as under 2,501 gm and found 23.7% of the control group and 11.6% of the study group to be low birth weight infants. We defined gestation periods less than 37 weeks as premature and found 34.4% of the control group and 21.4% of the study group to be born prematurely. Both of these differences were statistically significant at the level of p smaller than .01. The slightly diminished frequency of prenatal care in the control group was not significantly associated with the differences in birth weight or gestational age. One infant died in the study group and eight infants died in the control group.

The differences between the study group and the control group were most pronounced among the 14-year-old mothers.

Pediatrics, 46:581, 1970, ADOLESCENT PREGNANCY, PREVENTIVE HEALTH SERVICES, PREMATURITY, SPECIAL EDUCATIONAL PROGRAMS.

PREVIOUSLY an excess frequency of premature births to mothers 16 years of age and younger was reported. This was accompanied by an increased infant mortality rate which was particularly high when the mothers did not receive prenatal care.[1] Subsequently, it was possible to evaluate the effect of a program established in 1966 by the Baltimore City Public Schools for school aged mothers upon the health of these mothers by studying their infants.

The school for teen-age mothers required each to register with a social agency and to either attend a clinic or engage a physician for prenatal care. The school provided counseling sessions and student activities designed to permit ventilation of worries or fears and to promote awareness of individual responsibility. The home economics courses demonstrated the selection and preparation of foods to increase the health of the pupils and their children. Milk was distributed three times each day. Hot lunches were served after the second year of operation. The school nurse gave nursing advice or referred the pupils to specific sources of care. Each of these activities was expected to contribute to the health of the mother and her infant.

The purpose of this paper is to describe the differences in morbidity and mortality in infants born to mothers attending the special school with infants born to a control group. Comparisons will be made between infants of the same sex born within the same year of mothers who are the same age, race, and economic level of neighborhood. The dependent variables are limited to those reported on birth certificates and death certificates. While birth certificate reporting of birth weight and gestational age, and death certificate reporting are remote

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(Received December 18, 1969; revision accepted for publication April 18, 1970.)

ADDRESS: (O.C.S.) Community Pediatric Center, 412 W. Redwood Street, Baltimore, Maryland 21201.

PEDIATRICS, Vol. 46, No. 4, October 1970

TABLE I

LIVE BIRTHS ACCORDING TO BIRTH WEIGHT AND MEMBERSHIP IN STUDY GROUP AND CONTROL GROUP

Birth Weight (gm)	*Study Group*	*Control Group*	*Grand Total*
1,000 or less	—	3	3
1,001-1,500	2	2	4
1,501-2,000	5	9	14
2,001-2,500	19	39	58
2,501-3,000	82	64	146
3,001-3,500	90	81	171
3,501-4,000	25	23	48
4,001-4,500	1	3	4
4,501 and over	—	—	—
Total	224	224	448
2,500 gm or less	26	53	79
% 2,500 gm or less	11.6	23.7	17.7
	t=3.32	.001<p<.01	

from the biological and pathological processes, these variables are objective and their importance has been established.

METHOD

We obtained maiden name, married name, birth date, recent addresses, expected date of confinement, and source of medical care information from the records of the Edgar Allen Poe School (hereinafter called the school for mothers) for all girls attending the school between September 1967 and December 1968. We then searched the files of the Division of Vital Records where births are listed by mother's name and the date of the birth. We used mother's birth date, address, and source of care to confirm the correspondence between the school registration of the mothers with birth registration of the child. This search revealed 259 birth certificates of children born to the mothers who attended this school.

We attempted to match these 259 infants with 259 infants born during this same period to mothers who did not attend the school for mothers. The variables selected for matching were race and age of mother, sex and birth order of infant, hospital of birth, and census tract of mother's residence. These requirements had to be relaxed when hospital of birth and census tract of mother's residence were too restrictive. We did match 224 pairs requiring that the census tracts of the mother's residences were economically similar and in the same area of the city. We disregarded hospital of delivery. This left 35 births to school mothers which were not matched. Of these, there were four mothers who were 12 years old and seven who were 13 years old. (Six of these youngest mothers delivered before the thirty-seventh week of pregnancy. The length of pregnancy was unknown for one mother. Two of these 11 had low birth weight infants). Since these could not be matched, they were all eliminated from the study. Four mothers were eliminated when the ages on the infants' birth certificates exceeded the age limits of the study. Two others gave birth to twins and were eliminated. The remaining 18 unmatched births were to mothers 14 and 15 years of age for which no match on sex of infant could be obtained; school mothers apparently had more boys than were available in the remaining pool.

The matched 224 births represented 69 births to mothers 14 years of age, 129 to mothers 15 years of age, and 26 to mothers 16 years old. The two groups were compared with relation to birth weight, length of gestation, trimester of first prenatal care, and infant mortality.

RESULTS

Birth Weight

Table I shows the number of live births according to age of mother and birth weight for the study and control groups and the proportion (%) of infants weighing less than 2,501 gm at birth for each group. The difference in the number of light weight (less than 2,501 gm) infants in the two groups is quite striking with 53 in the control group compared to 26 in the study group. The difference in the resulting ratios of 23.7% for the control group and 11.6% for the study group is statistically significant, $p < .01$. Not only is there a large difference in the proportion of light-weight infants for the total of the two groups, but within each single year age group, the proportion in the study group is much lower than in the control group. The difference is statistically significant for the 14-year-old group as shown in Table II.

Length of Gestation

Table III shows the number and percent distribution of the two groups according to birth weight and length of gestation. When the length of gestation was compared in both groups, the study group again shows a more favorable outcome than that of the control group. In the school group, 21.4% were reported to have had gestation periods of less than 37 weeks as compared to 34.4% in the control group. When the mothers with unreported periods of gestation are removed from the denominator, the proportion with gestation periods of less than 37 weeks became 22.0% for the study group and 34.7% for the control group. This difference is statistically significant $p < .01$.

Considering both birth weight and length of gestation together, the proportion with the most favorable pregnancy outcome, namely a birth weight 72,500 gm and a gestation of at least 37 weeks, was approximately 71% for the study group compared to 54% for the control group.

Infants with low birth weights, but born after 37 weeks of gestation, were also of special interest. Among this group may be infants whose growth has been retarded by inadequate nutrition or inadequate function of the placenta. The percent of the low birth weight for gestation infants was 5.4% for the study group and 10.7% for the control group.

Prenatal Care

Table IV shows the number and percent distribution of the two groups with regard to the trimester of first prenatal care as reported on the birth certificates. More than 44% of the mothers who attended the school began prenatal care during the first trimester of pregnancy while less than 29% of the control group began similar care. No prenatal care was reported for two of the study group mothers and 12 of the control group mothers, and there were two mothers in each group for whom the extent of prenatal care was unkown.

TABLE II

LIVE BIRTHS TO 14-YEAR-OLD AND 15-YEAR-OLD MOTHERS ACCORDING TO BIRTH WEIGHT, AGE OF MOTHER, AND STUDY GROUP MEMBERSHIP

Birth Weight in Grams	*Study Group*		*Control Group*		*Total*
	Age of Mother				
	14	*15*	*14*	*15*	
1,000 or less	—	—	—	3	3
1,001-1,500	—	2	1	1	4
1,501-2,000	1	4	4	4	13
2,001-2,500	6	11	14	19	50
2,501-3,000	25	48	16	40	129
3,001-3,500	31	47	26	47	151
3,501-4,000	5	17	7	13	42
4,001-4,500	1	—	1	2	4
4,501 and over	—	—	—	—	
Total	69	129	69	129	396
2,500 grams or less	7	17	19	27	70
%	10.1	13.2	27.5	20.9	17.6

Table V shows no remarkable differences in birth weights when infants are grouped by trimester of first prenatal care. The more favorable outcome of infants born to mothers who attended the school for mothers is seen regardless of the time of initiation of prenatal care. The differences between the groups in proportion of mothers receiving early prenatal care, recorded in Table IV, do not explain the differences in prematurity rates.

Infant Mortality

Although total infant mortality cannot be determined until all infants born in 1968 have reached 1 year of age, we counted those deaths that have already occurred. This count included all neonatal mortality.

There were no neonatal deaths among the study group, while there were six deaths in the control group. All six of these control group deaths occurred among infants who weighed less than 2,501 gm at birth and who had a gestation period of less than 37 weeks. In all six instances the mother was reported to have started prenatal care during the first (two) or second (four) trimester of pregnancy.

There was one death reported at 3 months of age in the study group. The cause of this death was coded as pneumonia, unspecified. This infant weighed 3,000 to 3,500 gm at birth and had a reported gestation of 41 weeks. In the control group there were two additional deaths, each at 1 month of age. One of these infants had weighed less than 1,001 gm at birth with a gestation period of only 31 weeks. The other infant had a birth weight of 2,501 to 3,000 gm and a 40-week gestation period, but he then died from unspecified brain disease.

Thus, at the time of matching, there had been one infant death in the study group compared to eight infant deaths in the control group.

DISCUSSION

The Context of Our Inquiry

One of the biological problems of pregnancy of a girl below 17 years of age is the problem of the growth of the fetus in a mother who is still growing; a condition of competition for any nutrient essential for growth which may not be adequately supplied in the diet. We had the following impressions that led us to carry out this study: (1) adolescent mothers with teen-age eating habits, from low income families, and in stressful urban neighborhoods will be less able to support the growth of a fetus; (2) a special school program will partially correct some of the social stresses and the limited or distorted dietary patterns; and (3) the greatest effect will be demonstrated in the group of mothers with the largest proportion of members who are still growing. Lack of support for the growth of fetuses may be expressed by birth of infants before the thirty-seventh week of pregnancy, newborn infants that are small for the gestational dates, and that are more susceptible to injury, illness, and death.

Selection Factors

To interpret these findings, it is necessary to recognize multiple potential factors that operated in selecting the school mothers as well as yielding larger babies. The young mother who elects to attend the school may be more mature socially and physically. She may be more purposeful and less frightened. She may be more capable of meeting her own needs and may be more comfortable than her age mate who could not accept or complete a referral from her previous school. Her family may be more accepting of the pregnancy and more supportive of the goals of the school. These developmental, attitudinal, emotional, and social factors require further study.

To the extent that favorable selection factors are operating, we must use absence-from-the school as an indicator of the increased risks of the infant born to the young mother who does not select herself for the program. If the mother who is not attending is less mature, more poorly nourished, more frightened, more disorganized, and more ostracized, she needs even more help than those who do attend. This calls for imaginative methods of assistance from health services if the rate of 23.7% low birth weight infants found in the control group of this study is to be reduced in similar high risk groups.

School Factors

The school program constitutes another series of potential causes of the observed differences. It provides improved nutrition through the school lunch, the extra milk intake, and classroom instruction concerning diet. It reinforces use of medical and social services. It gives much emotional support. It discourages cigarette smoking, at least during classroom time. It reduces tensions produced by conflicting social values by employment of discussion methods in many classrooms, by large investment of counseling, by emphasizing individual autonomy and student self-government, and by selection of a staff that is sensitive to needs but

TABLE III

LIVE BIRTHS ACCORDING TO BIRTH WEIGHT AND LENGTH OF GESTATION
STUDY AND CONTROL GROUPS

Length of Gestation	*Study Group*			*Control Group*		
	Birth Weight					
	Under 2,501 gm	*2,501 gm and over*	*Total*	*Under 2,501 gm*	*2,501 gm and over*	*Total*
	Number					
Under 37 wk	13	35	48	29	48	77
37 wk and over	12	158	170	24	121	145
Unknown	1	5	6	—	2	2
Total	26	198	224	53	171	224
	*Percent Distribution**					
Under 37 wk	5.8	15.6	21.4	12.9	21.4	34.4
37 wk and over	5.4	70.5	75.9	10.7	54.0	64.7
Unknown	0.4	2.2	2.7	—	0.9	0.9
Total	11.6	88.4	100.0	23.7	76.3	100.0

* Individual percentages may not add to row and column totals because of rounding.

sensible about responsibilities. It encourages regular hours for activity, eating, and sleeping through its own schedule and by supporting those attitudes. Many of these processes may interact with each other to produce a more confident, goal-seeking mother in contrast to a frightened, disorganized adolescent whose pregnancy aggravates all of her problems.

Adequate nutrition may be a crucial variable in this experience. Ebbs[2] documented a significant reduction in low birth weight infants for a group of mothers with low family incomes when the study group received milk and cheese supplements. Burke[3] showed a direct correlation between birth weight of infant and protein intake of the mother in another low income population. Tompkins[4] gave protein supplements to a group of mothers attending a prenatal clinic and demonstrated a significant reduction in the frequency of low birth weight infants among the recipients in contrast to the controls. This was especially true for underweight Negro mothers. These effects were all obtained in populations who were recognizable as having suboptimal nutrition. Teen-agers from low income populations are likely to have deficient intake.[5] By offering hot lunches and milk supplements, and by educating for improved food selection the school has made itself a means for the young mother's attainment of more adequate nutrition.

Biological Age as a Factor

Although fewer in number, the 14-year-old mothers rather than the 15-year-old mothers demonstrated a statistically significant difference between study groups and control groups. This supports our interest in the biologic problem of a fetus competing for essential nutrients when the mother is still growing. This is also supported by another study in our department showing that, when birth occurs within 18 months of menarche, the frequency of low birth weight babies was double that of a group of mothers matched for the same chronological age but who gave birth more than 18 months after menarche.[6]

Implications for Further Study

The continued presence in the community of large numbers of teen-age mothers who do not have the benefit of a special

TABLE IV

NUMBER AND PERCENT DISTRIBUTION OF LIVE BIRTHS ACCORDING TO TRIMESTER OF FIRST PRENATAL CARE

Trimester	*Study Group*		*Control Group*	
	Number	*Percent**	*Number*	*Percent**
1	100	44.6	63	28.1
2	104	46.4	118	52.7
3	16	7.1	29	12.9
None	2	0.9	12	5.4
Unknown	2	0.9	2	0.9
Total	224	100.0	224	100.0

* Individual percentages may not add to exactly 100.0 because of rounding.

TABLE V

NUMBER AND PERCENT OF LIVE BIRTHS WITH BIRTH WEIGHT OF 2,500 GM OR LESS ACCORDING TO TRIMESTER OF FIRST PRENATAL CARE

Trimester	*Study Group*			*Control Group*		
	Total	*2,500 gm or less*	*Percent 2,500 gm or Less*	*Total*	*2,500 gm or Less*	*Percent 2,500 gm or Less*
1	100	13	13.[illegible]	[illegible]	14	22.2
2	104	11	10.6	118	31	26.3
3	16	1	[illegible].3	29	7	24.1
None	2	—	—	12	1	8.3
Unknown	2	1		2	—	
Total	224	26	11.6	224	53	23.7

school, suggests that intensive efforts to provide optimal social assistance should be instituted at once. Can an intensive nutrition program or an intensive home counseling service show similar reductions in the frequency of low birth weight infants? If limited resources can finance the correction of only one problem, it becomes desirable to rank variables according to their contribution to the observed differences. An appropriate research design may elucidate the interaction between variables inferred above.

We have suggested that any, or all, of the variables mentioned above may have an exaggerated effect upon the mother who has not yet completed her own adolescent spurt of growth. The variables of age will probably be of even greater value if future studies use post-menarchal age as well as chronological age to identify the mothers with greatest risk of low birth weight infant and in greatest need of services.

SUMMARY

Comparison of 224 births to mothers who had attended a special school for teen-age mothers with 224 other Baltimore City births matched on age and race of mother and sex and birth order of infant showed a statistically significant smaller proportion of infants weighing less than 2,501 gm at birth among the mothers of the special school. In addition, a statistically significant smaller proportion had gestation periods of less than 37 weeks. These differences could not be explained by an initiation of prenatal care earlier in pregnancy among the mothers attending the school, although a larger proportion of these mothers had started prenatal care during the first trimester of pregnancy than of the other mothers. Infant mortality was also much lower among the infants of school age mothers, with one death occurring in this group compared to eight in the control group. All but one of the eight deaths in the control group were among infants weighing less than 2,501 gm at birth.

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Acknowledgment

We gratefully acknowledge the help of and wish to thank Mrs. Vivian Washington, Principal of the Edgar Allen Poe School; Dr. Orlando F. Furno, Assistant Commissioner of Education of Baltimore City Public Schools; and Mr. Sidney Norton, Director of the Bureau of Vital Records, Baltimore City Health Department, who made this study possible.

Reprinted from *Pediatrics*, Vol. 46, No. 4
October, 1970
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AMERICAN JOURNAL OF EPIDEMIOLOGY
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Vol. 91, No. 3
Printed in U.S.A.

DEMOGRAPHIC CORRELATES OF LOW BIRTH WEIGHT

GERALD WIENER AND TOBY MILTON[1, 2]

(Received for publication September 23, 1969)

Wiener, G. (Johns Hopkins Univ. School of Hygiene and Public Health, Baltimore, Md. 21205) and T. Milton. Demographic correlates of low birth weight. *Amer. J. Epid.*, 1970, 91: 260–272.—Data from 100,277 certificates of live births were analyzed in an attempt to uncover independent correlates of birth weight and gestation time. Without statistical control, each of these variables was shown to be significantly related to race, trimester of obtaining prenatal care, mother's age, parity, socioeconomic status, and legitimacy status. Regression analyses indicated that mother's race and the trimester in which she obtained prenatal care were the most significant correlates of birth weight and gestation time. It was suggested that race and trimester of obtaining prenatal care were not, in themselves, "causes" of low birth weight. Other indices of socioeconomic, cultural, biological, medical, and psychologic factors may be correlated with mother's race and the trimester in which she obtains prenatal care.

birth weight; illegitimacy; infant, premature; maternal age; parity; pregnancy; prenatal care; socioeconomic factors

Low birth weight (<2501 gm) has been used as an index of prematurity, and low birth weight is known to be associated with increased neonatal mortality. Low birth weight is also associated with relative mental and educational impairment of surviving infants (1–3).

Despite the importance of prematurity as a factor in neonatal mortality and future intellectual impairment, it is estimated that about 50 per cent of the associated or causal factors are not known (4, 5). In an attempt to unravel causal factors, many studies have examined the relationship between birth weight (or gestation time) and selected demographic factors. Herzog and Bernstein (6), in their review of these studies, noted that prematurity rates (and other complications of pregnancy) are greater for illegitimately born children, and that prematurity rates are also highest in populations classified as non-white. However, Herzog and Bernstein state that causal relationship between the variables mentioned is unclear: "A number of the studies suggest . . . that marital status in itself may be less important than other factors in determining the course and outcome of pregnancy . . . the evidence seems unambiguous that unmarried mothers are likely to receive less prenatal care than married ones. The evidence seems unambiguous, also, that low socioeconomic status is related to complications of pregnancy, and to obtaining less prenatal care than is considered optimum. There is reason to believe that socioeconomic status may also be related to the quality of prenatal care during pregnancy and delivery" (p. 29). Illegitimacy, race, and social class, while intercorrelated, are also associated with parity and mother's age.

The purpose of this research is to isolate the contribution of each of these variables

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[1] Division of Maternal and Child Health, Department of Population and Family Health, The Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. 21205.

[2] The authors would like to express their appreciation to the Baltimore City Health Department, and to Dr. Helen Abbey for her most useful statistical assistance.

while controlling, simultaneously, for each of the other correlated factors. One means of accomplishing this is to study a series of homogeneous populations. This was the approach of Battaglia, Frazier, and Hellegers (7), who indicated that extremely young (less than 15 years of age), primiparous mothers have a significantly greater proportion of low birth weight infants than a controlled group of older women. However, a report by Von Der Ahe (8) suggests that this is not the case.

Another way to isolate an independent association is to consider several variables simultaneously by multivariate statistical methods. Greenberg and Wells (9) applied the discriminant function to analyze data regarding perinatal mortality. Their results indicated that low birth weight and various other obstetric complications were useful independent predictors of perinatal mortality. However, mother's age, parity, race, education, and socioeconomic status (SES) were not significant, except insofar as these predicted low birth weight and other obstetric complications. Abernathy et al. (10) demonstrated the independent association between smoking and birth weight by multiple regression. The use of these multivariate statistics requires that variables under consideration are normally distributed and linearly related. Greenberg and Wells, along with others, imply that non-normally distributed variables do not distort results greatly.

Feldstein (11, 12) demonstrated the use of non-parametric multiple regression to assess the independent effects of parity, age, and SES. He noted that age and parity did not contribute to perinatal mortality, but that perinatal mortality independently was associated with social class.

The results and conclusions drawn depend on the list of variables included in a given multivariate analysis. Feldstein felt that SES was significant because it is related to factors such as type of obstetric care and occupation during pregnancy. Feldstein's findings confirmed that of Rider et al. (13) who studied white, primiparous mothers, and controlled for age. These investigators noted a gradient in low birth weight associated with SES as estimated by census tract area of residence. They estimated that low birth weight could be reduced by 26 per cent if all segments of the population had the same "risk" as the highest SES group.

In this paper partial correlation and multiple regression analyses will be used to analyze selected correlates of birth weight and gestation time: mother's SES, age, parity, race, marital status, and time of obtaining prenatal care. Some of the variables considered, such as legitimacy status and race, are not truly appropriate for correlational analysis, in that they are categorical rather than continuous variables. For this reason, the results of this regression analysis will be compared with the non-parametric regression technique described by Feldstein.

METHODS

Data to be analyzed were taken from the Baltimore City birth certificate records. They included 100,277 of the 109,356 live births during the years 1961 to 1965. The 9,079 births eliminated from the study were excluded because of the following reasons: 1) Unavailability of some variables for each case; 2) multiple births; 3) maternal ages less than 10 or more than 50 which were felt to reflect recording errors; and 4) gestation period of less than 21 or more than 48 weeks. Of the 9,079 births excluded, 2,430 (26.8 per cent) weighed less than 2501 grams, probably because of the exclusion of multiple births.

Due to the excluded data, birth weight rates or gestation time rates are underestimates of what the true population parameters are likely to be. In the five-year period studied, all white people had a prematurity rate, as estimated by birth weight, of 7.7 per cent. If one used all live births of 1965 (with no exclusions), an estimate of prematurity rate for white people would be 8.5 per cent. Considering Negroes, the five-year sample with the mentioned exclusions provides a prematurity estimate of 14.6 per cent; whereas, for the total 1965 sample, birth weight data provide a prematurity estimate of 16.7 per cent. The exclusions did not change the relative prematurity rates for the two racial groups.

All birth weights were grouped (in the punch cards provided by the Baltimore City Health Department) in categories from zero to nine. The zero category included all births less than 1001 grams and the nine category included all live births greater than 5000 grams. Other intervals were in 500 gram units. Gestation time data were scored as weeks of pregnancy. Race was coded so that 1 indicated Caucasian births and 2 represented Negro. Prenatal care was indicated by a score of 1 to 4; 1 to 3 represented the trimester during which the mother was listed as first obtaining prenatal care. A score of 4 was given to mothers who reported no prenatal care prior to delivery. We feel that this measure is not a good estimate of prenatal care in that it does not relate to the quality of care provided. Further, some hospital records and birth certificates might record "No prenatal care" if the mother obtained such care in a clinic not associated with the hospital in which the infant was born. Such bias would be most frequent in lower SES groups. Although it is recognized that time of obtaining prenatal care is only an approximation of the quality of such care, this datum was the only relevant information available from birth certificate records. Other limitations of this variable will be discussed below. SES was scored on a scale from 0 through 9 and was defined by census tract of mother's residence. Census tracts were graded according to median rental in that area. Although median rent is correlated with education and income of family, it was pointed out by Stockwell (14) that there are other, perhaps more appropriate, indices of social class. Mother's age was her last birthday. Parity referred to the number of live births. Parity of 1 indicated that the current birth was the mother's first live delivery. Legitimacy was scored so that 1 reflected legitimacy and 2 indicated illegitimacy. Legitimacy was not indicated on the birth certificate, but was estimated by matching the last names of mother, infant and putative father.

RESULTS

A matrix of correlation coefficients (r's) between the eight variables considered in this paper is shown in table 1. Although this paper is primarily concerned with low birth weight, the availability of gestation data permitted its use as a second dependent variable. The two dependent variables, e.g., birth weight and reported length of gestation, had a correlation of .47. Each r value shown in table 1 was significant ($p < .001$), but many of the significant r values were low. Contingency table data would demonstrate the meaning of these low, but highly significant, relationships. For example, the r between SES and parity was −.17. Of the mothers in the highest SES, 10.9 per cent had five or more living children. Of the mothers in the lowest SES, 27.5 per cent had five or more living children. These data were associated with a χ^2 of 2,687.5 (4 df).[a]

The partial correlation (r_p) statistic was utilized to obtain an estimate of the controlled relationship between dependent and independent variables as shown in table 2. Birth weight was related to race and to trimester of prenatal care independently in a highly significant fashion when all other independent variables were simultaneously held constant. Negro women who came late or not at all for prenatal care were at greatest risk of having low birth weight infants. Each of the other variables

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[a] A matrix of contingency tables (and associated χ^2 values) between each of the variables for which r's were given in table 1 was computed. These tables are available upon request.

TABLE 1

Product-moment correlation (r) *matrix**

	Gestation time	Race	Trimester of prenatal care	Legitimacy	Age	Parity	SES
Birth weight	.47	−.20	−.17	−.14	.09	.04	.11
Gestation time		−.20	−.19	−.12	.03	−.06	.10
Race			.43	.37	−.08	.19	−.32
Trimester of prenatal care				.33	−.11	.21	−.35
Legitimacy					−.22	−.10	−.24
Age						.57	.12
Parity							−.17

* The number of cases in this and all subsequent tables is 100,277. σ_r is approximately .003. All r values are significant ($p < .001$). All signs are "logical" and reflect direction of scoring as described. Thus, white infants are heavier and have a greater gestational period, older women have had more live births, etc.

TABLE 2

Partial correlation (r_p) *and multiple correlation* (R) *analysis of birth weight and length of gestation**

Variable	Birth weight		Variable	Gestation	
	r_p	Cumulative R		r_p	Cumulative R
Race	−.12	.203	Race	−.12	.201
Trimester of prenatal care	−.08	.222	Trimester of prenatal care	−.09	.229
Parity	.06	.239	Legitimacy	−.03	.231
SES	.03	.242	Parity	−.02	.231
Legitimacy	−.02	.243	Age	.01	.231
Age	.01	.244	SES	.00	.231
$R = .24$ $F = 1055.5$, 6 & 100,270 df, $p < .001$			$R = .23$ $F = 946.2$, 6 & 100,270 df, $p < .001$		

* The standard deviation for $r_p = .003$. All r_p values $> .01$ are significant ($p < .001$).

listed was also significantly related to the criterion variable, but relatively less so. The r_p between length of gestation and the independent variables studied here was similar to the analysis of birth weight; race and prenatal care were the most significant predicting variables.

Parity, SES, legitimacy, and age consistently had relatively low, but significant relationships with each of the dependent variables but were, for predictive purposes, negligible compared to race and trimester of prenatal care.

The regression analysis of table 2 implies that the most informative three-way contingency table for birth weight or gestation time would involve race and prenatal care. These data appear in tables 3 and 4. In comparing the most extreme groups, 6.5 per cent of white infants whose mothers had come for prenatal care in the first trimester were born with weights of 2500 grams or less. This compared with 22.0 per cent of Negro infants whose mothers had not come for any prenatal care prior to delivery. Of white mothers who obtained prenatal care in the first trimester, 8.3 per cent reported a gestation period of less than 37 weeks. On the other hand, 34.7 per cent of Negro mothers who delivered children with no prenatal care reported a gestation period of less than 37 weeks.

Data in table 5 show the crude prematurity rate for each variable considered, and the unadjusted deviation from the total population's prematurity rate (11.0 per cent). Using a non-parametric regression method, adjusted low birth weight rates were computed.[4] The adjusted rate is the rate for any specific group when all other variables are controlled. When the adjusted rates were examined, only three factors were of relative significance: race, prenatal care and very young age (<15) were associated with low birth weight. Legitimacy status, parity, SES, and age groupings above 15 were of minor importance. These results compare with the multiple regression analysis shown in table 2. The major discrepancy consisted of the fact that mother's age did not appear a major factor with usual regression analysis; but, this is to be expected since there were relatively few mothers (584) under 15 years of age. However, infants of these few mothers were very much at risk of being born with a birth weight of less than 2501 grams.

The adjusted rates shown in table 5 do not provide a measure of variance of the dependent variable "explained". However, an interesting use of the adjusted deviations is that a prediction for a given subgroup of the population can be made by adding the separate adjusted deviations for each subgroup of each variable to the crude prematurity rate. The greatest risk for having a low birth weight infant is borne by a population of women who have no medical care, are Negro, not married, under 15 years of age, are having their first child, and are of the lowest SES. The expected low birth weight rate for this group is 29.5 per cent. Compare this predicted rate with actual data shown in table 6 (the actual birth weight data for such mothers). Also, tables 3 and 4 provide actual prematurity rates by race and time of obtaining prenatal care. These compare closely with predicted rates. Although regression analyses do not pinpoint

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[4] The non-parametric regression, as lucidly described by Feldstein (12), and paraphrased below, is similar to standard multiple regression methods. Each of the variables, including the dependent variable, is binary (e.g., age is categorized in discrete categories such as <15, 16-17, etc.). A score for a specific age subgroup would be one or zero, depending upon the respondent's actual age category. The use of binary variables precludes assumptions regarding distribution of scores. To study prematurity, a summary equation is:

$$y = X\beta + u$$

when

y_t = 1 if a birth t is <2501 gm
= 0 if a birth t is >2500 gm
x_{ti} = 1 if birth t is in subclass i (e.g., to a mother's age <15)
= 0 if mother's age is not in category i
u_t is an unobservable stochastic error.

The model is limited, as that of usual multiple regression, in that interaction effects are not considered in accounting for variation in the dependent variable.

The classical least squares estimate of β are obtained from the equation:

$$b = (X'X)^{-1}X'y$$

Here, since each variable is binary, the matrix $X'X$ and vector $X'y$ are the number of persons in subclass ij. A typical element of $X'X$ is $x_{ti}x_{tj}$. Calculation of the matrix $X'X$ is directly written from information obtained in a series of two-way tables. If there are Q subclasses, the $X'X$ matrix can be obtained from $Q(Q - 1)/2$ two-way tables. The adjusted deviation of a particular subclass of a given factor is the difference between the regression coefficient associated with that subclass and the weighted average of the regression coefficients of all subclasses of that factor in which the weight is the population proportion of each subclass. Procedures for obtaining the standard error of the adjusted deviations are described by Feldstein, but it is felt that presentation of these is not necessary in that the large number of cases reported here imply that almost all differences would be statistically significant. The relative importance of a given variable would appear to have more meaning than the fact that it is statistically significant.

TABLE 3

Birth weight by trimester of prenatal care and race[*]

Birth weight (grams)	Trimester of prenatal care							
	1		2		3		None	
	No.	%	No.	%	No.	%	No.	%
White								
<2000	667	1.9	295	2.8	77	2.3	119	6.4
2000–2500	1,639	4.6	718	6.8	264	7.8	171	9.1
2501–3000	6,849	19.2	2,352	22.2	780	23.2	420	22.4
>3000	26,551	74.4	7,232	68.2	2,248	66.7	1,161	62.1
Total	35,706	100.1	10,597	100.0	3,369	100.0	1,871	100.0
Negro								
<2000	415	3.9	875	4.2	359	3.8	757	10.0
2000–2500	833	7.8	1,943	9.2	1,000	10.6	913	12.0
2501–3000	2,983	27.9	6,420	30.6	2,911	30.9	2,366	31.1
>3000	6,467	60.5	11,772	56.0	5,155	54.7	3,565	46.9
Total	10,698	100.1	21,010	100.0	9,425	100.0	7,601	100.0

[*] For whites, χ^2 showing effect of prenatal care is 487.96, 9 df. For Negroes, χ^2 showing effect of prenatal care is 731.8, 9 df. For those obtaining prenatal care in the first trimester, the difference between the races is expressed by $\chi^2 = 818.7$, 3 df, $p < .001$. For those obtaining prenatal care in the second trimester, the difference between the races is expressed by $\chi^2 = 439.7$, 3 df, $p < .001$. For those obtaining prenatal care in the third trimester, the difference between the races is expressed by $\chi^2 = 157.5$, 3 df, $p < .001$. For those not obtaining prenatal care, the difference between the races is expressed by $\chi^2 = 139.4$, 3 df, $p < .001$.

TABLE 4

Length of gestation by trimester of prenatal care and race[*]

Gestation time (weeks)	Trimester of prenatal care							
	1		2		3		None	
	No.	%	No.	%	No.	%	No.	%
White								
<37	2,961	8.3	1,399	13.2	526	15.6	397	21.2
37–40	22,622	63.3	6,226	58.8	1,863	55.3	968	51.7
41+	10,123	28.3	2,972	28.0	980	29.0	506	27.0
Total	35,706	99.9	10,597	100.0	3,369	99.9	1,871	99.9
Negro								
<37	1,842	17.2	4,724	22.5	2,620	27.8	2,637	34.7
37–40	6,715	62.8	12,403	59.0	5,155	54.6	3,823	50.3
41+	2,141	20.0	3,883	18.5	1,650	17.5	1,141	15.1
Total	10,698	100.0	21,010	100.0	9,425	99.9	7,601	100.1

[*] For whites, χ^2 showing effect of prenatal care is 584.7, 6 df. For Negroes, χ^2 showing effect of prenatal care is 841.9, 6 df. For those obtaining prenatal care in the first trimester, the difference between the races is expressed by $\chi^2 = 844.0$, 2 df, $p < .01$. For those obtaining prenatal care in the second trimester, the difference between the races is expressed by $\chi^2 = 610.5$, 2 df, $p < .01$. For those obtaining prenatal care in the third trimester, the difference between the races is expressed by $\chi^2 = 312.0$, 2 df, $p < .01$. For those not obtaining prenatal care, the difference between the races is expressed by $\chi^2 = 209.6$, 2 df, $p < .01$.

TABLE 5

*Crude and adjusted low birth weight (LBW) rates**

Group	No. of LBW	Total No. of births	% LBW	Crude deviation (%)	Adjusted deviation (%)
Trimester of prenatal care					
1	3,554	46,404	7.7	−3.3	−1.8
2	3,831	31,607	12.1	+1.1	0.0
3	1,700	12,794	13.3	+2.3	+0.8
None	1,960	9,472	20.7	+9.7	+8.1
Race					
White	3,950	51,543	7.7	−3.3	−2.0
Negro	7,095	48,734	14.6	+3.6	+2.2
Marital status					
Legitimate	7,849	80,353	9.8	−1.2	−0.1
Illegitimate	3,196	19,924	16.0	+5.0	+0.6
Age					
<15	125	584	21.4	+10.4	+6.3
15–16	656	4,074	16.1	+5.1	+1.9
17–18	1,418	9,634	14.7	+3.7	+1.9
19–34	7,852	77,494	10.1	−0.9	−.6
>34	994	8,491	11.7	+0.7	+1.5
Parity					
1	3,281	29,210	11.2	+0.2	+0.6
2–4	5,403	50,868	10.6	−0.4	+0.1
>4	2,361	20,199	11.7	+0.7	−1.0
SES					
Low	4,625	34,350	13.6	+2.6	+0.7
Medium	4,573	40,614	11.3	+.3	+0.1
High	1,847	25,313	7.3	−3.7	−1.1

* Total number of births = 100,277. Number of LBW infants = 11,045. Crude LBW rate is 11.0%. Crude deviation represents the difference between the % of LBW infants in a given category from the population LBW rate of 11.0%. The adjusted deviation represents the expected LBW rate if all other variables were simultaneously controlled (using the non-parametric regression described by Feldstein).

causes, their use in case finding and public health planning is obvious in that segments of the population at greatest risk can be identified.

The analyses described are of interest, from a pediatric or obstetric viewpoint, as regards variables found not to be of relative importance. In table 6 and the tables which follow (7 through 10), each of the less significant variables are examined. These data were selected from the entire sample, so as to provide large enough numbers of homogeneous subgroups for comparison.

Table 6 shows the effect of age upon birth weight. The chi squares indicate that age is not important for this population. However, if mothers less than 15 years of age were compared with all older women, the results would be significant ($\chi^2 = 6.90$, 1 df, $p < .01$). Such results confirm those of Battaglia et al.

An examination of the crude relationship between SES and birth weight would suggest this a potent predicting variable. The low birth weight rates vary from 7.3 to 13.6 per cent, a difference of 6.3 per cent. However, the adjusted rates only vary between 9.9 per cent and 11.7 per cent. This is considerably less significant than the crude low birth weight rate would suggest. Relevant data appear in table 7, which shows variation in SES and prematurity rates for all white, legitimate 2–4th parity infants of mothers aged 19–35. For two of the four "trimester of

TABLE 6

Birth weight by mothers' age and trimester of prenatal care for all Negro, illegitimate, first parity, lower SES mothers[*]

Age	Birth weight < 2501 grams		Total No. of births
	No.	%	
First trimester of prenatal care			
10–14	12	25.5	47
15–16	29	16.2	179
17–18	24	16.2	148
19–34	20	13.6	147
>34	—	—	3
$\chi^2 = 3.72$, 3 df, not significant			
Second trimester of prenatal care			
10–14	27	17.9	151
15–16	97	15.3	636
17–18	86	16.2	531
19–34	87	17.5	497
>34	—	—	5
$\chi^2 = 1.31$, 3 df, not significant			
Third trimester of prenatal care			
10–14	19	32.7	58
15–16	44	18.1	243
17–18	43	19.9	216
19–34	30	18.5	162
>34	—	—	3
$\chi^2 = 6.66$, 3 df, not significant			
No prenatal care			
10–14	11	31.4	35
15–16	37	22.3	166
17–18	37	23.9	155
19–34	30	23.4	128
>34	—	—	1
$\chi^2 = 1.34$, 3 df, not significant			

[*] $\chi^2 = 6.90$, 1 df, $p < .01$ between infants born to mothers under 15 years of age versus all other infants.

medical care groups", SES is a significant predictor.

Both regression methods imply a slight, but significant, independent association between parity and birth weight: women with four or more previous live births should tend to have fewer infants of low birth weight. Data in table 8 show parity by birth weight for all white, middle SES mothers who had legitimate children. None of the data in table 8 are statistically significant. Perhaps parity interacts with other factors, such as race or SES, so that its effect would be shown if other groups were selected for study; or perhaps a combination of high parity and low age is deleterious. However, our data are not adequate for investigating spacing as a factor contributing to prematurity.

The final variable concerns the legitimacy of the infant. The unadjusted prematurity rate (table 5) suggests that legitimacy status is an important correlate of birth weight, in agreement with various

TABLE 7

Birth weight by SES and trimester of prenatal care for all white, legitimate, 2nd–4th parity of mothers, age 19–35

SES	Birth weight <2501 grams		Total No. of births
	No.	%	
First trimester of prenatal care			
Lower	217	8.1	2,694
Middle	384	6.3	6,056
Upper	442	5.3	8,401
$\chi^2 = 28.98$, 2 df, $p < .001$			
Second trimester of prenatal care			
Lower	150	9.9	1,517
Middle	176	8.9	1,976
Upper	68	7.4	926
$\chi^2 = 4.58$, 2 df, $p < .10$			
Third trimester of prenatal care			
Lower	69	13.1	526
Middle	48	8.6	557
Upper	10	5.7	175
$\chi^2 = 9.14$, 2 df, $p < .02$			
No prenatal care			
Lower	44	14.0	314
Middle	44	15.6	282
Upper	12	13.2	91
$\chi^2 = .46$, 2 df, not significant			

TABLE 8

Birth weight by parity and trimester of prenatal care for white, legitimate, middle SES mothers, age 19–34

Parity	Birth weight <2501 grams		Total No. of births
	No.	%	
First trimester of prenatal care			
1	235	7.1	3,303
2–4	384	6.3	6,056
>4	68	7.5	910
$\chi^2 = 3.08$, 2 df, not significant			
Second trimester of prenatal care			
1	66	10.4	637
2–4	176	8.9	1,976
>4	62	10.6	585
$\chi^2 = 2.18$, 2 df, not significant			
Third trimester of prenatal care			
1	16	11.5	128
2–4	48	8.6	557
>4	14	6.6	212
$\chi^2 = 3.51$, 2 df, not significant			
No prenatal care			
1	5	12.5	40
2–4	44	15.6	282
>4	18	13.7	131
$\chi^2 = .49$, 2 df, not significant			

summaries which appear in the literature. Further, Salerno (15) indicated that toxemia, partly due to psychological stress, might be a mediating factor in causing prematurity. Schneider (16) suggests that the risk for low birth weight associated with legitimacy status should be the basis of public health programs. But these investigators, among others, also note that legitimacy status may be secondary to race, age, social class, and parity. The regression statistics employed imply a relatively minor role for illegitimacy, per se. Data in tables 9 and 10 show the effect of legitimacy for eight groups consisting of Negro mothers, age 17–18, whose infant is the first live birth. Table 9 shows data for lower class mothers, and table 10 presents information regarding middle class mothers. In seven of the eight comparison groups, there are no significant differences in low birth weight associated with legitimacy. One of the eight groups showed a significant association ($p < .02$). It might be concluded that legitimacy status, as studied here, does not affect birth weight.

DISCUSSION

Univariate analysis suggests that any of the variables discussed in this paper is significantly associated with low birth weight and should be considered in a causal analysis. However, both multivariate analyses or a comparison of homogeneous populations suggest: 1) race and time of obtaining prenatal care are independently associated with birth weight;

TABLE 9

Birth weight by legitimacy and trimester of prenatal care for all Negro, lower class, first parity mothers, age 17–18

Legitimacy	Birth weight <2501 grams		Total No. of births
	No.	%	
First trimester of prenatal care			
Legitimate	15	16.3	92
Illegitimate	24	16.2	148
$\chi^2 = .00$, 1 df, not significant			
Second trimester of prenatal care			
Legitimate	34	16.4	208
Illegitimate	86	16.2	531
$\chi^2 = .00$, 1 df, not significant			
Third trimester of prenatal care			
Legitimate	11	20.0	55
Illegitimate	43	19.9	216
$\chi^2 = .00$, 1 df, not significant			
No prenatal care			
Legitimate	16	44.4	36
Illegitimate	37	23.9	155
$\chi^2 = 6.18$, 1 df, $p < .02$			

TABLE 10

Birth weight by legitimacy and trimester of prenatal care for all Negro, middle class, first parity mothers, age 17–18

Legitimacy	Birth weight <2501 grams		Total No. of births
	No.	%	
First trimester of prenatal care			
Legitimate	26	18.8	138
Illegitimate	24	16.1	149
χ^2 = .37, 1 df, not significant			
Second trimester of prenatal care			
Legitimate	33	12.8	257
Illegitimate	67	14.1	475
χ^2 = .22, 1 df, not significant			
Third trimester of prenatal care			
Legitimate	11	12.9	85
Illegitimate	34	17.3	196
χ^2 = .85, 1 df, not significant			
No prenatal care			
Legitimate	8	36.4	22
Illegitimate	27	24.0	104
χ^2 = .98, 1 df, not significant			

2) relative to the above factors, SES, legitimacy, age (except for the very young), and parity are much less important in explaining variation in birth weight.

In order to interpret these results, several considerations are critical. Each of the above variables might show new significance if it were studied in conjunction with other variables, i.e., if the statistical interacting effects were examined. With six independent variables, 57 interactions are possible. Also, the findings and deductions are based upon indices utilized to assess variables. For example, SES—an index of social-cultural difference—was based on census tract (median rental) of residence. Other indices of these social-cultural differences such as mother's nutrition, education[4], income, working status, stress, etc., might prove more useful in understanding prematurity rates. The results of usual regression analyses imply that a demographic analysis of birth weight (even when using several variables simultaneously) yield significant results. But such significant results do not account for a major portion of the variance in birth weight or gestational period. For example, a multiple correlation coefficient of .244 (see table 2) is shown to be highly significant, but is associated with only 6 per cent of the variation in birth weight.

The positive finding that trimester of obtaining (or not obtaining) prenatal care independently "predicts" birth weight must be modified due to the nature of the data regarding prenatal care. The category "no medical care", although it has important predictive value, is hard to interpret. Doubtless it consists of an unspecified number of women who would have obtained care had their pregnancy not terminated in a premature delivery. Data in table 11 indicate that 99.68 per cent of all viable low birth weight infants (and 99.58 per cent of all live births) were reportedly born after the second trimester of pregnancy. The conclusion to be drawn from this is that the category "no prenatal care" should be properly labeled "none, or delayed, prenatal care", and conceptually might be included with the category of women who obtained prenatal care in the third trimester. Table 12 implies a similar conclusion. The frequency of low birth

TABLE 11

Number of live births before the third trimester (25th week of gestation) by race and birth weight

Race	Birth weight				Total
	<2501 grams		>2500 grams		
	No.	%	No.	%	
White	95	0.18	25	0.05	51,543
Negro	226	0.55	79	0.16	48,734
Total	321	0.32	104	0.10	100,277

TABLE 12

Birth weight by trimester of prenatal care for all Negro, lower SES women, age 19–34, who reported a gestational period of 37–40 weeks

Trimester of prenatal care	Illegitimate births <2501 grams			Legitimate births <2501 grams		
	No.	%	Total	No.	%	Total
1	5	3.2	157	50	7.4	672
2	50	8.4	598	95	6.3	1502
3	49	12.1	405	60	10.2	586
None	50	12.0	417	38	9.7	393
	$\chi^2 = 13.95$, 3 df, $p < .01$ χ^2 (groups 1 and 2 vs 3 and none) = 10.06, 1 df, $p < .01$			$\chi^2 = 9.14$, 3 df, $p < .05$ χ^2 (groups 1 and 2 vs 3 and none) = 10.57, 1 df, $p < .01$		

For both populations pooled (by adding chi squares and associated degree of freedom):
$\chi^2 = 23.09$, 6 df, $p < .001$
χ^2 (groups 1 and 2 vs 3 and none) = 20.63, 2 df, $p < .001$

weight infants for women who delivered at term (37–40 weeks of gestation) was significantly greater for groups of women who obtained care in the third trimester, or who had no prenatal care by the 37th week of pregnancy. In the data shown in table 12 it is apparent that the low birth weight rate for women who obtained care in the third trimester, or not at all, is about the same. It is significantly different from the rate for women who obtained care in the first and second trimesters. The exact benefit of early prenatal care remains partly obscure in the etiology of prematurity. However, the predictive value of early prenatal care (versus "none, or delayed, prenatal care") is meaningfully significant compared to other variables studied here. Negro women who have infants without obtaining early prenatal care might be different from their "twins", who obtain care in the first trimester, in a variety of interrelated ways ranging from adequacy of diet, having to work during pregnancy, experiencing apathy, stress, anxiety, etc.

There is a conflicting literature regarding the adequacy of nutritional status upon birth weight. Chow and Sherwin (17) reviewed studies of mothers' severe wartime malnutrition and cited a study by Smith in which only minor birth weight changes were associated with severe deprivation of maternal caloric intake. Such minor infant weight changes were, for the most part, not associated with prematurity (as defined by birth weight). These authors also cited a study by Ebbs in which dietary supplementation did not appreciably affect infants' birth weight. Chow and Sherwin stated that further prospective research was needed for a definitive answer about the nature of mothers' nutritional status as a factor affecting infants' birth weight.

Regarding the effect of "delayed or no" medical care, it might be fruitful to conduct several types of research. The outcome of pregnancies of groups of women who are now obtaining adequate prenatal care consequent to various public medical programs might be compared with data available from comparable women who had not received adequate medical care. There is no doubt that appropriate medical care will prevent a certain proportion of low birth weights. Bacteriuria, toxemia, diabetes, etc., are all known and controllable conditions (cf research by Day (18); Savage, Haji, and Kass (19)). However, it is generally recognized that not all of the variation in low birth weight rates is explained by such known pathological conditions. A recent suggestive study by Kauppinen (20) reports that mothers who have a low heart volume (relative to total body surface) and who work have a greater risk of having an infant of low birth weight. Perhaps undertaking heavy manual labor (as is performed by domestic workers) is one relevant associated factor which accounts for the importance of race and prenatal care. It might be worthwhile to conduct exploratory interviews with mothers of comparable SES, parity, age, and marital status, and who differ with regard to early versus delayed or no prenatal care at time of delivery. Such a preliminary research might involve medical condition of the respondent, her life style (work, eating patterns), as well as psycho-social stress factors felt to be relevant. This type of survey might constitute the basis for needed prospective research.

It is difficult to comment regarding the role of race, per se, as an independent contributor to prematurity. It is possible that Negro infants are intrinsically smaller and that this is a genetic phenomenon. Racial differences as a factor affecting birth weight can not be disproved. However, within a given race, the incidence of prematurity is significantly less among women who seek care in the first and second trimesters of pregnancy. Scott, Jenkins and Crawford (21) reported variations in birth weight within the Negro population, according to income.

Data on birth weight by race (table 3) show a far greater incidence among Negroes of infants born under 2000 grams (i.e., a population that is pathologically premature, regardless of racial norms). Of the 7,601 Negro mothers in this sample who had no (or delayed) prenatal care, 10.0 per cent of surviving infants weighed less than 2000 grams even though the vast majority were born after the second trimester of pregnancy. The gestation time pattern, shown in table 4, varies in the same manner as low birth weight. To the extent that Negro infants weigh less at birth, and also are reported to be born in the third trimester of gestation but before the 37th week, it appears likely that a genetically determined racial norm is not the sole factor affecting the incidence of prematurity.

A research approach which would seem to deal with the question of racial difference in birth weight might consist of further studies of prematurity rates which occur within the Negro population. It was shown here, using the adjusted prematurity rates of table 5, that Negro infants' prematurity rates can vary from 25.1 per cent (no medical care, illegitimacy, age 15–18 inclusive, parity 1, lower SES) to 7.5 per cent (first trimester of prenatal care, legitimate, age 19–34, parity 2–4, upper SES). As has been stated, this list of correlated demographic factors is not the only, or best, predictive list of variables which can be constructed. If general health, nutrition, stress factors, patterns of health oriented behavior, and quality of obtained medical care were added to the regression equations, it is most likely that a larger proportion of the variation in birth weight could be understood for each race separately. Also, it is possible that racial differences in birth weight would assume minor or no importance.

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We are unable to locate any studies conducted among pregnant American teenagers which demonstrate a relation between nutritional intervention and a reduction in the likelihood that these females will deliver low birth weight infants. The effect of nutritional intervention during pregnancy on the birth weight of the infant has been clearly demonstrated only in rare instances of widespread and acute starvation and even these results are conflicting. It has been suggested that the mother may act as a buffer shielding her infant from the adverse effects of her own bad diet. This effect, for example, has been well documented in the case of iron. Convincing studies indicate that maternal body weight at the time of conception is of greater importance in predicting infant birth weight than the nutritional status of the mother during pregnancy. A study recently completed in Guatemala indicated a positive correlation between supplemental feeding and the birth weight of the infant. Whether or not these results can be applied to an American population, where the general nutritional status is higher than in a country such as Guatemala, remains uncertain.

Attached study:

Lechtig, Aaron, et. al " Effect of Food Supplementation During Pregnancy on Birth Weight, " Pediatrics, 56(1975), 508-520.

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Effect of Food Supplementation During Pregnancy on Birthweight

Aaron Lechtig, M.D., Jean-Pierre Habicht, M.D., Hernán Delgado, M.D., Robert E. Klein, Ph.D., Charles Yarbrough, Ph.D., and Reynaldo Martorell, Ph.D.

From the Division of Human Development, Institute of Nutrition of Central America and Panama, Guatemala

ABSTRACT. The high prevalence of low-birthweight ($\leq$ 2,500 gm) babies in many poor communities is a major public health problem. Studies in humans in situations of acute starvation suggest an effect of maternal nutrition on birthweight, but less clear results appear under situations of moderate maternal malnutrition. We studied the effects of food supplementation during pregnancy on birthweight in four rural villages of Guatemala, in which two types of supplements were distributed: protein-caloric and caloric.

The caloric supplementation increased the total caloric intake during pregnancy. In both supplements, the amount of calories supplemented during pregnancy showed a consistent association with birthweight. In the combined sample the proportion of low-birthweight babies in the high-supplement group (G $\geq$ 20,000 supplemented calories during pregnancy) was 9% compared with 19% in the low-supplement group (< 20,000 supplemented calories during pregnancy). The relationship between caloric supplementation and birthweight (29 gm of birthweight per 10,000 supplemented calories) was basically unchanged after controlling for the maternal home diet, height, head circumference, parity, gestational age, duration of disease during pregnancy, socioeconomic status, and different rates of missing data. Moreover, a similar association was found in consecutive pregnancies of the same mother. We concluded that caloric supplementation during pregnancy produced the observed increase in birthweight. *Pediatrics*, 56:508-520, 1975, LOW BIRTHWEIGHT, FOOD SUPPLEMENTATION, PREGNANCY, NUTRITION.

The proportion of babies with low birthweight ($\leq$ 2,500 gm) ranges between 13% and 43% in the low socioeconomic strata of many countries, including some developed nations.[1] These babies are less likely to survive during the first year of life than babies with higher birthweights.[2,3] This human wastage places considerable stress on poor societies, both emotionally and economically. Moreover, those low-birthweight babies who do survive frequently rank low on tests of mental development,[4-6] suggesting less ability to function economically and socially in a modern society. For these reasons, the high prevalence of LBW babies is a major public health problem and may also be a serious obstacle to national development.

Maternal malnutrition has been implicated as one of several environmental factors contributing to low birthweight. This paper briefly reviews the extant literature on the relationship between maternal nutrition and birthweight and presents the final results of a four-year experiment in which food supplements were provided to pregnant women in four rural villages in Guatemala.

LITERATURE REVIEW

Experiments with animals have shown that severe caloric or protein malnutrition during pregnancy delays fetal growth[7] and that this growth retardation may be irreversible in those

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(Received September 6, revision accepted for publication November 22, 1974.)

Supported by contract No. PH43-65-640 from the National Institute of Child Health and Human Development, National Institutes of Health.

ADDRESS FOR REPRINTS (A.L.) Institute of Nutrition of Central America and Panama, Carretera Roosevelt, Zone 11, Guatemala, Central America.

organs in which the nutritional insult has affected the rate of cell division.[8]

In humans, under conditions of acute starvation, a relationship between maternal nutrition and birthweight has been reported. Babies born from pregnancies occurring during periods of famine had consistently lower birthweights than babies born during times of adequate food availability in the same country.[9-11]

On the other hand, the impact of moderate levels of malnutrition on fetal growth is less clear. The consistent association between birthweight and maternal weight before pregnancy and/or weight gain during pregnancy has been interpreted by some as evidence for a nutritional effect on birthweight.[1,12] However, studies using information from dietary surveys or food supplementation programs have reported contradictory results. While in some studies an association between maternal food intake and birthweight was evident,[13,14] others have failed to reveal such association.[15-17]

The absence of a clear relationship between birthweight and food intake during pregnancy could be due in part to the fact that most of the women of the studied populations were relatively well nourished.[15-17] On the other hand, those studies showing an association between maternal nutrient intake and birthweight[13,14] are themselves inconclusive because the influence of potentially confounding variables such as infectious disease was not explicitly investigated.[8]

An analogous objection holds for our previous findings indicating that among pregnant women from rural Guatemala the average birthweight increased progressively as home dietary intake increased.[19] Although this relationship remained after the weight of the newborns was corrected for important maternal characteristics, we were unable to completely discard the possibility that nonnutritional factors could have produced both greater maternal food intake and higher birthweight.

Similarly, the results of Iyengar's experiment in India,[20] suggesting a strong effect of maternal food supplementation on birthweight, are difficult to interpret since, in order to implement the food supplementation program, the mothers in the experimental group were hospitalized during the last six to eight weeks of gestation. Hospitalization could have resulted in decreased rates of infection and reduced physical activity and these factors, in turn, may have been responsible for the observed increase in birthweight.[21,22]

In conclusion, there are two serious difficulties to be faced in studying the effect of moderate maternal malnutrition on birthweight: (1) the precise quantification of maternal nutritional status and (2) the control of confounding factors in order to be able to infer that the detected association is not artifactual.

Although pregnant women may adapt to widely varying nutrient intake without affecting the weight of the newborn, it is also possible that there are minimum nutrient requirements which must be satisfied to maintain optimal rates of fetal growth. Thus, the probability of finding a relationship between maternal nutrition during pregnancy and birthweight should be greater if this hypothesis is tested through a nutritional intervention program focused on malnourished mothers.

The present article reports the results of an experiment in which a nutritional supplement was made available to a chronically malnourished population of women of child-bearing age. Important maternal variables, capable of obscuring a relationship between maternal nutrition and birthweight, were also investigated.

TABLE I

EXPERIMENTAL DESIGN FOR FOUR VILLAGES*

Information†	*When Collected*
Obstetrical history	Once
Clinical examination	Quarterly
Anthropometry	Quarterly
Surveys	
Diet	Quarterly
Morbidity	Fortnightly
Attendance at feeding center	Daily
Amount of supplement ingested	Daily
Socioeconomic status	Estimated
Birthweight	At delivery

*Two villages received *atole*, a protein-calorie supplement, and two *fresco*, a calorie supplement.

†Pregnancy was diagnosed by absence of menstruation; these surveys were made fortnightly.

METHODS

Experimental Design

The data presented here are drawn from a long-term prospective study of the effects of chronic malnutrition on physical growth and mental development.[23] The experimental design and the principal examinations made during the prenatal period and at birth are presented in Table I. Two types of food supplements were provided: *atole* (a gruel) and *fresco* (a refreshing, cool drink). Two villages received *atole* while the other two received *fresco*. Attendance at the supplementation center was voluntary and this resulted in a

TABLE II

NUTRIENT CONTENT PER CUP*

Nutrient	Type of Supplement	
	Atole	*Fresco*
Total calories (kcal)	163	59
Protein (gm)	11	–
Fats (gm)	0.7	–
Carbohydrates (gm)	27	15.3
Ascorbic acid (mg)	4.0	4.0
Calcium (gm)	0.4	–
Phosphorus (gm)	0.3	–
Thiamine (mg)	1.1	1.1
Riboflavin (mg)	1.5	1.5
Niacin (mg)	18.5	18.5
Vitamin A (mg)	1.2	1.2
Iron (mg)	5.4	5.0
Fluor (mg)	0.2	0.2

*Figures rounded to the nearest tenth. One cup = 180 ml.

wide range of supplement intake during pregnancy. In addition, all villagers received preventive and curative medical care.

Table II presents the nutrient content for both *atole* and *fresco*. It should be stressed that the *fresco* contains no protein and provides only one third of the calories contained in an equal volume of *atole*. In addition, both preparations contain similar concentrations of the vitamins and minerals which are possibly limiting in the diets of this population.

Description of the Population

The median family income in the four villages is approximately $200 per year. The typical house is built of adobe and has no sanitary facilities. Drinking water is grossly contaminated. Before the study began around 15% of the newborns died during the first year of life, a very high figure when compared with the current rates of less than 2% in developed societies. Clinically severe malnutrition (kwashiorkor) was prevalent, and children were severely retarded in physical growth at 7 years of age.[24, 25] Intrauterine infections were also very common as compared with developed societies.[26] Corn and beans are the principal components of the home diet, with animal protein forming 12% of the total protein intake. Dietary surveys indicate that the average daily dietary intake throughout pregnancy was about 1,500 calories and 40 gm of protein. At the time the study began, malnutrition and infectious diseases were endemic in the four villages.

The average maternal height was 149 cm; the mean maternal weight at the end of the first trimester of pregnancy was 49 kg and the mean weight gain during gestation was 7 kg, about one half the norms.[27] The median number of previous deliveries was four (range, 0 to 13) and the median of age was 26 years (range, 14 to 46 years). In a small sample of newborns (No. = 42) collected at the beginning of this study, the average birthweight was 3,000 gm and one third of the newborns with normal gestational ages (No. = 39) weighed 2,500 gm or less. Although data are not available from similar villages, it should be noted that 41% of the newborns weighed 2,500 gm or less in one Mayan Indian rural village in which there was no nutritional intervention.[3]

Variables Selected for the Present Analysis

The six groups of variables to be analyzed in the present article are shown in Table III. Data collection on these variables was standardized and the data collectors were systematically rotated among the four study villages.

Maternal ingestion of food during pregnancy included two variables: ingestion of the supplement (the experimental treatment) and estimates of daily home diet intake for the last two trimesters of pregnancy. Maternal home intake was estimated through 24- and 72-hour recall surveys at the end of each trimester of pregnancy. Previous analyses have shown that the home diet intake during the first trimester of pregnancy was significantly lower than the intake during the last two trimesters and that there was no significant difference between the 24-hour and 72-hour recall surveys.[19] Both variables, supplement and home diet intake, were expressed in terms of calories because preliminary analyses made during the last four years have shown that caloric intake during pregnancy was consistently associated with birthweight in this population.[28, 29]

Maternal anthropometric examinations included height and head circumference as well as weight at the end of the first trimester of pregnancy. First-trimester weight may be considered an indicator of maternal nutritional status at the beginning of pregnancy while height and head circumference probably reflect maternal physical growth during infancy and childhood. Previous analyses in this population have shown that the differences in head circumference and height between the adult women of this population and United States standards were 3.9 and 16.9 cm, respectively. The differences observed for head circumference at 2 years of age and for height at 7 years of a[illegible] between the girls of this population and those of the same United States standards were 3.0 and 12.1 cm, respectively. These results suggest, therefore, that retardation in maternal height and head circumference reflects physical growth retardation in early life.[1]

The obstetrical variables were parity, expressed as the number of previous births, and gestational age which is elapsed time in weeks from conception to birth. Parity was determined by interviewing the mother and reviewing the village civil registry. Onset of pregnancy dated from the absence of a menstrual period. Since all mothers with preschool children were visited every two weeks, this information was elicited within 15 days of the missed period. Primiparas and those women with postpartum amenorrhea who became pregnant were usually identified somewhat later. In addition to these variables, birth interval since the previous baby, age of the mother, and duration of lactation during the present pregnancy were also recorded.

Maternal morbidity during pregnancy was estimated through the same fortnightly interviews used to monitor menstruation. A composite morbidity indicator was generated by adding the number of days per month of pregnancy during which the mother was ill with diarrhea, anorexia, or remained in bed due to illness. In previous analyses, these components were shown to be significantly associated with birthweight. Lastly, the risk of intrauterine infection was estimated by measuring IgM levels in cord blood.[28]

The socioeconomic status of the family was described by a composite scale reflecting the physical conditions of the house, the mother's clothing, and the reported extent of teaching various skills and tasks to preschool age children by family members. In previous analyses, these three items showed consistent associations with birthweight.[40]

Weight of the newborn was determined within the first 24 hours of birth to the nearest 20 gm.

Sample Size

A total of 671 births occurred during the four years of data collection (from January 1969 through February 1973) in the four villages. Twins (nine pairs) and two cases with extreme birthweights for their gestational age (1,500 and 5,500 gm) were discarded for the present analysis. The total caloric supplementation during pregnancy for these two cases was 700 and 1,000 calories, respectively. Of the remaining 651 children data on the independent and dependent variables, maternal supplementation during pregnancy, and birthweight, respectively, were available for 405 babies (62%). Also, 210 mothers had two or more successive pregnancies during the four-year study and birthweight and maternal supplementation data were available for 94 pairs of consecutive pregnancies.

Rates of birthweight data collection per year of the study are presented in Table IV. The lowest completion rates occurred in 1969 because routine data collection was not instituted until June 1970. After that, birthweight was not collected for 60 infants, 38 of these because their

TABLE III

MAIN VARIABLES USED IN THE PRESENT ANALYSIS

No.	*Variable*
1	Maternal ingestion of food during pregnancy: experimental treatment, food supplementation (calories); daily home diet at ends of second and third trimesters
2	Maternal anthropometry during pregnancy: height and head circumference (at any time); weight (at end of first trimester)
3	Obstetrical history: parity, gestational age, birth interval, maternal age, and lactation during present pregnancy
4	Morbidity during pregnancy: composite indicator based on duration of diarrhea, anorexia, and remaining in bed due to illness; cord blood IgM levels
5	Socioeconomic status of family: composite indicator based on house, clothing, and education
6	Information on the newborn: birthweight and sex

TABLE IV

COMPLETENESS OF DATA COLLECTION ON BIRTHWEIGHT PER YEAR OF THE PROGRAM*

Data	*1969*	*1970*	*1971 to 1973*	*Total 1969 to 1973*
Births†	168	157	326	651
Birthweight data collected	40	100	285	405
Percentage of births	24	64	81‡	62

*Routine data collection of birthweight started on June 1970.

†Nine pairs of twins and two cases with exaggerated variability (1,500 and 5,500 gm) excluded.

‡Of the 61 cases without birthweight data (1971 to 1973), 38 were children from mothers who left the villages during the first months of their pregnancy and came back several weeks after the baby was born. For mothers whose pregnancy was followed, the coverage of birthweight data was 92%.

TABLE V

RELATIONSHIP BETWEEN SUPPLEMENTED CALORIES DURING PREGNANCY AND HOME CALORIC INTAKE

For the Four Villages

Measure	*Value*
Correlation (*r*)	−.015
Slope (b)	−3.1 home cal/100 supplemented cal
P	>.10 (NS)
No. of cases	357

For Two Levels of Caloric Supplementation

	Group			
Measure	*Low-Supplement (<20,000 cal)*	*High-Supplement (≥20,000 cal)*	*Difference Between the Means (HSG - LSG)*	*P*
Home caloric intake (cal/day)	1,415 ± 443	1,374 ± 364	−41	NS
Supplemented calories during pregnancy	7,200 ± 6,221	42,001 ± 19,221	34,801	<.001
Total caloric intake (cal/day)*	1,458 ± 446	1,607 ± 380	149†	<.001
Birthweight (gm)	2,997 ± 471	3,114 ± 476	117	<.05
No. of cases	192	165		

*Estimated by adding the ratio supplemented calories divided by 180 days to the daily home caloric intake.

Equivalent to 26,820 calories during the last two trimesters of pregnancy.

mothers left the village during their first months of pregnancy and did not return until several weeks after delivery. For mothers for whom it was possible to follow the entire pregnancy, the coverage between June 1970 and February 1973 was 92%. Finally, the numbers in the Tables and Figures fluctuate because measurement of some of the other variables was instituted at different times and because an occasional measurement was missed.

RESULTS

The contribution of supplemented calories to total nutrient intake during pregnancy was examined and subsequent analyses focused on the relationship between food supplementation during pregnancy and birthweight.

Effect of the Supplemented Calories on the Total Caloric Intake During Pregnancy

The goal of the food supplementation intervention was to increase the total caloric intake during pregnancy. Reference to Table V shows that the correlation between supplemented calories and home caloric intake was negative, although not significant. Table V also shows that the home caloric intake for two levels of caloric supplementation was not significantly different. Therefore, these analyses indicate that there was no association between caloric supplementation and home caloric intake and that the supplementation program produced a net increase in the total caloric intake. Finally, after combining for each mother the calories from the home diet and the food supplement, the high-supplement group had a total caloric intake significantly higher than the low-supplement group. The difference between both groups (149 calories/day) indicates that the average net increase in the total caloric intake was 26,820 calories during pregnancy.

Relationship Between Food Supplementation During Pregnancy and Birthweight

To explore the effect of food supplementation during pregnancy on birthweight, we first measured the magnitude of the association between caloric supplementation and birthweight within the *fresco* and *atole* villages. Next, we investigated whether or not the observed association between supplemented calories and birthweight was due to other maternal characteristics, to changes in rates of missing data, or to some undetected maternal factor producing a trend to heavier babies in high-supplement mothers. This last analysis was made exploring the association between changes in caloric supplementation during pregnancy and changes in birthweight within siblings of the same mother.

Magnitude of the Association Between Food Supplementation During Pregnancy and Birthweight—Table VI describes the relationship between caloric supplementation during pregnancy and birthweight. The increase in birthweight for the same amount of calories, or slope value, is not significantly different between *fresco* and *atole* villages. This Table also demonstrates that in the total population there was a significant correlation between caloric supplementation during pregnancy and birthweight ($P < .01$).

It should be noted that there was a significant difference ($P < .05$) between the slope values for the *fresco* and *atole* villages when total volume of supplement ingested during pregnancy was used as independent variable instead of the total amount of supplemented calories. Thus, the slope value for the *fresco* villages was very low (9 gm of birthweight per 10 liters) as compared with the slope for *atole* villages (19 gm of birthweight per 10 liters). Earlier analyses had shown similar differences when supplemented volume was used as independent variable,[31] a result due to the different concentration of calories in the supplements.

Another approach to estimating the magnitude of this relationship consists of examining the differences in birthweight between two groups of pregnant women regarding their level of caloric supplementation. Table VII shows that there [illegible] a significant difference ($P < .025$) between the mean birthweight for two levels of caloric supplementation during pregnancy (low-supplement group, ≤ 20,000 calories; high-supplement group, ≥ 20,000 calories). Again, this analysis shows no significant difference between the caloric and the protein-caloric supplementation.

The limit (20,000 calories) used to separate the low-supplement group from the high-supplement group was selected because in previous analyses[28] the median caloric supplementation during pregnancy in the four villages was very close to 20,000 calories. In these analyses, we found that this limit predicted risk of delivering babies with low birthweight and therefore we were interested in testing the consistency of our previous findings. In addition, the division above and below 20,000 supplemented calories was further rationalized by the observation that this amount of calories was close to the increment of caloric expenditure produced during pregnancy in well-nourished mothers[32] and that it would be sufficient to produce an increment of 60 to 240 gm in the average birthweight of this population.[33] It should be noted that in Table V the difference between the mean supplemented calories for the low-supplement group and the high-supplement group was 34,801 calories.

Finally, one of the most important estimations of the magnitude of this relationship, from a public health point of view, is the change in the proportion of low-birthweight babies produced by the nutritional intervention. Figure 1 shows the percentage of low-birthweight babies for the two groups. It can be seen that this proportion is consistently lower in the high-supplement in both the *fresco* and the *atole* populations. Thus, the association between caloric supplementation during pregnancy and birthweight is such that the rate of low-birthweight babies among low-supple-

TABLE VI

RELATIONSHIP BETWEEN SUPPLEMENTED CALORIES DURING PREGNANCY AND BIRTHWEIGHT

Village	*Correlation Value (r)*	*Slope Value* (gm of birthweight per 10,000 cal)*	*No. of Cases*	*P*
Atole	.113	23	219	<.10
Fresco	.123	30	186	<.10
Totals	.135	29	405	<.01

*Slope for *fresco* greater than slope for *atole*: NS (by test of covariance).

TABLE VII

RELATIONSHIP BETWEEN SUPPLEMENTED CALORIES DURING PREGNANCY AND BIRTHWEIGHT FOR TWO LEVELS OF CALORIC SUPPLEMENTATION

	Mean Birthweight					
	Atole		*Fresco*		*Total*	
Group	*gm*	*No.*	*gm*	*No.*	*gm*	*No.*
High-supplement (≥20,000 cal)	3,173	102	3,035	68	3,105	170
Low-supplement (<20,000 cal)	3,042	117	2,948	118	2,994	235
Total	3,107	219	2,992	186	3,049 (±409)	405

Analysis of Variance for Differences in Birthweight

Cells	*P*
High greater than low	<.025
Atole greater than *fresco*	<.025
Interaction	NS

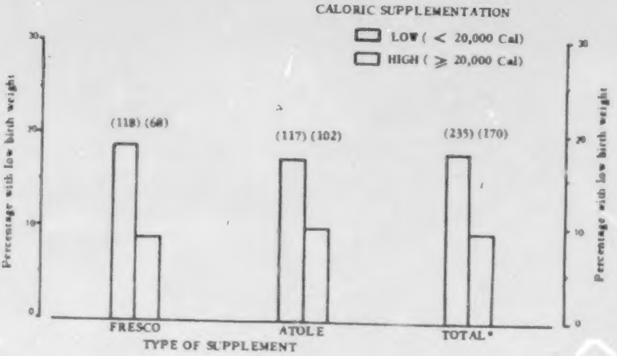

Fig. 1. Relationship between supplemented calories during pregnancy and proportion of low-birthweight ($\leq$ 2,500 gm) babies. *Numbers in parentheses* indicate numbers of cases. *Asterisk*, $P < .05$.

ment mothers was roughly twice that observed among high-supplement mothers.

In summary, the analyses presented in Tables VI and VII and in Figure 1 indicate that there was a consistent association between supplemented calories and birthweight and that, provided that the same amount of calories was given, there were no significant differences between the protein-calorie and the calorie supplements.

Effect of Potential Confounding Factors—Once we detected a statistically significant association between caloric supplementation during pregnancy and birthweight, the question of primary interest was whether or not this association could be due to confounding factors. Thus, we explored the possibility that other maternal factors could be responsible for the observed association between supplemented calories and birthweight. By confounding factors we mean variables that are associated in the same direction with both the dependent (birthweight) and the independent (supplemented calories during pregnancy) variables. For example, it is possible that the high-supplement mothers were taller than the low-supplement mothers. Given the fact that taller women deliver heavier babies,[15,34] heights of the mothers could be responsible for the observed association between supplemented calories and birthweight. If this were the case maternal height would be a confounding factor.

The variables presented in Table III were investigated, first with respect to their association with birthweight and then with respect to their relationship with caloric supplementation during pregnancy. The correlation values between maternal characteristics and birthweight for those variables which were significantly associated with birthweight are presented in Table VIII. It can be seen that, in addition to caloric supplementation during pregnancy, gestational age, height, head circumference, socioeconomic status, chronological age, parity, weight at the end of the first trimester of pregnancy, and maternal morbidity were correlated with birthweight. However, none of these maternal characteristics were significantly correlated with caloric supplementation and, therefore, they cannot be responsible for the observed association between supplemented calories and birthweight.

Nevertheless, we explored through multiple regression analyses to what extent the original relationship between supplemented calories and birthweight reported in Table VI changed after controlling for the influence of the maternal variables presented in Table VIII. When these maternal factors were entered as independent variables in a multiple regression predicting birthweight, the dose-response relationship between caloric supplementation and birthweight remained statistically significant. Table IX shows that the relationship between supplemented calories during pregnancy and birthweight was basically unchanged after statistically controlling for the influence of these maternal variables.

Therefore, this analysis indicates that the maternal characteristics here measured, either alone or combined, could not explain the originally observed association.

In a previous review of the published literature on experimental and nonexperimental studies in humans, we arrived to the conclusion that, if there is an effect of food supplementation during pregnancy on birthweight, the expected magnitude for this effect should range between 25 and 84 gm of birthweight per 10,000 supplemented calories, depending on the previous nutritional status of the mother, home diet intake, grade of replacement of the home diet by the supplementary food, health status, and level of physical activity during pregnancy.[11] The slope values observed in Table IX (29 or 30 gm of birthweight per 10,000 supplemented calories) fall within the range of these expected dose-response relationships.

The distribution of these maternal factors for the low-supplement and high-supplement groups was also examined. Table X presents the mean and standard deviations of each of the maternal characteristics for two levels of caloric supplementation. It can be seen in this Table that there were no significant differences between the two groups for maternal height, head circumference, parity, and gestational age, but that there were significant differences between the groups for socioeconomic status and for the duration of morbidity during pregnancy. However, these variables cannot be responsible for the increment in birthweight observed in the high-supplement group since this group scored lower in the socioeconomic indicator and suffered more duration of disease during pregnancy than did the low-supplement group. Since birthweight decreases as duration of morbidity increases or as the socioeconomic score decreases (Table VIII), the birthweight increment found in the high-supplement group can not be explained by the differences observed in the socioeconomic score and in morbidity.

Effect of Missing Data—Table IV shows that the coverage for birthweight and maternal supplementation was 62% for the entire sample. This relatively low coverage was mainly due to the fact that systematic data collection on birthweight started 1½ years after the food supplementation program began (see section on sample size). To determine whether the observed association presented in Table VI and Figure 1 was due to bias produced by missing data, we examined this relationship in the population studied from July 1970 through February 1973, in which the data coverage was 92%. It can be seen in Table XI that in this population the relationship between supplemented calories during pregnancy and birthweight was similar in direction and magnitude to that observed in the whole study population. In addition, the slope value after controlling for the maternal factors presented in Table VIII was identical to that observed for the whole population after a similar procedure was applied. Therefore, it is unlikely that these findings are due to a bias produced by missing data.

Sibling Analysis—There remains the possibility that the mothers delivering heavier babies were those who also tended to collaborate more with the program. If this were the case, the association observed between caloric supplementation during pregnancy and birthweight would be artifactual. To explore the possibility that some constant

TABLE VIII

MATERNAL DETERMINANTS OF BIRTHWEIGHT IN FOUR RURAL VILLAGES OF GUATEMALA

Determinant	*Correlation Coefficient*	*No.*
At conception		
Height	.134*	399
Head circumference	.284*	363
Age	.116*	401
Parity	.154*	40[illegible]
Socioeconomic status indicator	.219*	363
At end of first trimester		
Weight	.277*	221
During pregnancy		
Gestational age	.217*	395
Morbidity indicator	−.122†	240
Caloric supplementation‡	.135*	405

*$P < .01$.

†$P < .05$.

‡Value for the multiple correlation predicting birthweight: $r = .410$ ($P < .01$).

TABLE IX

RELATIONSHIP BETWEEN CALORIC SUPPLEMENTATION DURING PREGNANCY AND BIRTHWEIGHT (No. = 405)

*Controlling for Suspected Confounding Factors**	*Slope†*	*SE*
Before (simple regression)	29	10.6
After (multiple regression)	30	10.6

*Height, head circumference, age, parity, socioeconomic status, weight at end of first trimester, gestational age, morbidity indicator, and home diet.

†Slope is obtained by dividing grams of birthweight by 10,000 calories. $P < .01$.

TABLE X

Maternal Characteristics for Two Levels of Caloric Supplementation During Pregnancy

Maternal Characteristics	*Low-Supplement Group (<20,000 cal)*	*High-Supplement Group (≥20,000 cal)*	*P*
Height (cm)	148.9 ± 5.0	149.5 ± 5.5	NS
Birthweight (gm)	2,991 ± 457	3,118 ± 475	<.01
No.	229	170	
Head circumference (cm)	51.0 ± 1.4	51.0 ± 1.4	NS
Birthweight (gm)	3,000 ± 463	3,120 ± 478	<.05
No.	200	163	
Age (yr)	27.3 ± 7.3	28.1 ± 7.2	NS
Birthweight (gm)	2,994 ± 459	3,118 ± 425	<.05
No.	231	170	
Parity (No. of previous deliveries)	3.7 ± 3.4	4.1 ± 3.2	NS
Birthweight (gm)	2,993 ± 458	3,118 ± 475	<.01
No.	234	170	
Socioeconomic status indicator	0.96 ± 0.83	0.75 ± 0.84	<.05
Birthweight (gm)	2,998 ± 460	3,116 ± 484	<.05
No.	205	158	
Weight at end 1st trimester (kg)	48.1 ± 5.8	48.4 ± 6.9	NS
Birthweight (gm)	3,093 ± 508	3,117 ± 480	NS
No.	91	130	
Gestational age (wk)	39.6 ± 1.6	39.7 ± 1.5	NS
Birthweight (gm)	2,997 ± 450	3.118 ± 479	<.05
No.	229	166	
Morbidity indicator (days/month of pregnancy)	2.1 ± 3.3	3.1 ± 4.7	<.05
Birthweight (gm)	3,025 ± 487	3,106 ± 491	NS
No.	96	144	

maternal factor might be responsible for both the high consumption of food supplement during pregnancy and heavier newborns, we studied consecutive siblings of the same mother.

Figure 2 presents the mean differences in birthweight for 94 pairs of siblings divided into three groups. These groups were defined by the differences in caloric supplementation of the mother between two successive pregnancies. When caloric supplementation during the latter pregnancy was lower than during the preceding pregnancy, the birthweight of the latter baby was lower than that of the preceding baby. When the caloric supplementation during the latter pregnancy was more than 20,000 calories higher than during the preceding pregnancy, the latter newborn was heavier than the preceding one. The intermediate group is composed of siblings in which the increment in caloric supplementation during the latter pregnancy was between 100 and 20,000 calories. In this group, the mean difference in birthweight between both babies was close to zero and, therefore, intermediate between the extreme groups. In consequence, the analysis presented in Figure 2 indicates a positive association between changes in caloric supplementation and changes in birthweight in consecutive pregnancies of the same mother. The correlation between differences in caloric supplementation between both pregnancies and differences in birthweight between both babies was also significant ($r = .298$; No. = 94, $P < .01$). Finally, after adjusting the changes in caloric supplementation and in birthweight for the intercorrelations existing between successive pregnancies,[*] the relationship between caloric supplementation and birthweight was roughly similar (slope value = 22 gm of birth weight per 10,000 calories) to that observed in the entire population.

In summary, the analyses presented in Tables VIII to XI and in Figure 2 indicate that the relationship of supplemented calories to birthweight was consistent in the entire population studied, in the population with the highest rates of coverage, and between siblings of the same mother.

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[*] Successive birthweights are correlated ($r = .549$, $P < .001$) as is the amount of caloric supplementation between two successive pregnancies ($r = .414$, $P < .001$).

TABLE XI

RELATIONSHIP BETWEEN SUPPLEMENTED CALORIES AND BIRTHWEIGHT IN REGARD TO DIFFERENT RATES OF COVERAGE ON BIRTHWEIGHT DATA

			*Slope**		
Population	*Coverage Rate (%)*	*Correlation Value (r)*	*Simple Regression*	*Multiple Regression*	*No. of Cases*
Total (21,812 ± 21,770)†	63	.135	29§	30§	405
High coverage‡ (24,407 ± 22,649)†	92	.116	24‖	30§	331

*Slope was obtained by dividing grams of birthweight by 10,000 calories after controlling for suspected confounding factors: height, head circumference, parity, socioeconomic status, weight at end of first trimester, gestational age, morbidity indicator, and home diet. Slope for total study population was not significantly greater than slope for high coverage population by test of covariance.

†Numbers in parentheses indicate mean caloric supplementation ± SD.

‡From July 1970 through February 1973.

§$P < .01$.

‖$P < .05$.

DISCUSSION

We have found an association between supplemented calories during pregnancy and birthweight and also the somewhat surprising result that both the protein-calorie and the caloric supplements had a similar effect on birthweight. In the following paragraphs we will discuss some of the questions of logic raised by these results: the possible explanations for the absence of effect of protein supplementation on birthweight; the cause-and-effect nature of the observed association, and the potential public health implications of these findings.

Why Was There No Effect of Protein Supplementation on Birthweight?

There are several explanations for the unexpected result that protein supplementation was not directly associated with birthweight. First, in this population the main limiting nutrient in the maternal home diet is calories and not protein. The average home caloric intake is very low and provides a relatively small margin for physical activity (around 250 calories). On the other hand, protein intake from home diet is slightly higher (7.5%) than the average required for maintenance and tissue synthesis.[33] Also, the protein to calorie ratio in the home diet (11.5%) is similar to the observed figures for well-nourished populations.

An analysis of the literature suggested that, if the hypothesis of caloric limitation is correct, an increment of 20,000 calories in the total caloric intake during pregnancy would produce an average daily retention of 0.72 gm of nitrogen per day, which is enough to produce a birthweight increment from 72 to 168 gm as well as the associated weight gain during pregnancy. Under similar conditions of caloric limitation, a very large increment of the protein intake would be required to produce a similar value in nitrogen retention and the same increment in birthweight. Above a certain limit of caloric supplementation, protein will gradually become the main limiting factor. In this case, further caloric supplementa-

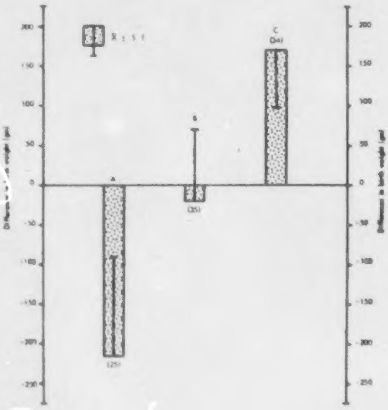

FIG. 2. Relationship between differences in caloric supplementation and differences in birthweight for two consecutive siblings (second birthweight minus first birthweight). No. = 94 pairs. Difference in caloric supplementation during pregnancy: $A = -40,000$ to 0 calories, $B = 100$ to 20,000 calories, $C = 20,000$ to 120,000 calories. *Numbers in parentheses* indicate numbers of pairs. Difference between *A* and *C*: $P < .01$.

tion alone would not produce an effect on birthweight unless it was accompanied by protein supplementation.[33]

Other factors are also important in explaining the observed effect of caloric supplementation and they are discussed elsewhere.[33] The most likely to us are that the human fetus may adapt better to protein deficiency than to caloric deficiency and that, within the range of mean birthweight under discussion (3,000 to 3,200 gm) birthweight would mainly be a function of the accumulation of fetal adipose tissue and therefore of the availability of calories.[33]

Is the Relationship Between Caloric Supplementation and Birthweight a Causal Association?

Experimental studies are best suited to make causal inferences. However, our experiment was originally designed to test the effect of protein supplementation, not caloric supplementation, on birthweight. Thus, two villages were assigned to the group supplemented with protein and calories and the other two were supplemented with the caloric preparation. The main weakness in this design is that, because the experiment was not designed to test the effect of levels of caloric supplementation during pregnancy on birthweight, the allocation of the pregnant women in a particular category of caloric supplementation was based on their cooperation with the food supplementation program and not on a planned action of the researcher. Therefore, we should interpret the observed results not in terms of an experiment, but as a finding from a nonexperimental, prospective, cohort study in which the exposure (caloric intake) and outcome (birthweight) were carefully assessed, and one in which important maternal factors could not explain the detected association between supplemented calories and birthweight.

From this point of view, the analyses presented here have shown that:

(1) The caloric supplementation produced a biologically significant increment in the total nutrient intake during pregnancy.

(2) Higher levels of caloric supplementation during pregnancy were associated with a significant increase in birthweight and a decrease of the risk of delivering low-birthweight babies.

(3) There was a dose-response relationship of a similar order of magnitude to that computed from a wide variety of studies.

(4) This association with birthweight held constant after important maternal variables were controlled.

(5) The relationship was not due to missing data.

(6) In addition, this association was not produced by undetected confounding factors related to the mother (such as an individual tendency to have bigger babies) since it was also observed within two consecutive siblings of the same mother.

Therefore, we concluded that the most suitable interpretation of these results is that caloric supplementation during pregnancy *caused* an increase in birthweight in this population.

What Are the Public Health Implications of These Findings?

The ultimate implications of the observed association depend on the importance of birthweight *per se* for the baby. We mentioned at the beginning of this paper that low-birthweight babies have higher rates of infant and neonatal mortality and are more likely to perform poorly on tests of mental development than are babies with higher birthweights. In the United States most of the differences in infant mortality rates between whites and non-whites are directly associated with differences in birthweight.[3] Further analyses based on the data of Chase[2] demonstrated that the impact of an improvement of maternal nutrition on infant deaths would depend on the extent to which such a program produces a decrease on the proportion of low-birthweight babies.[35] This suggests that the efficiency (or benefit to cost ratio) of nutritional programs aimed at decreasing infant mortality could be greatly enhanced if these programs were focused on mothers at high risk of delivering low-birthweight babies. For this purpose, several risk instruments feasible for use in populations with inadequate health services have been recently proposed.[36, 37]

In conclusion, the observed effect of food supplementation during pregnancy on birthweight presents important public health implications in terms of the possibility of decreasing infant mortality rates in many poor communities around the world.

It should be emphasized that this technique of nutritional intervention, by distributing a food supplement, was implemented as a research manipulation. Food supplementation programs generally are expensive and time-consuming, create "dependent" populations, and frequently induce unfavorable effects on the local food industry. Therefore, they are inappropriate for large populations over long periods of time. Since the causal association between maternal nutrition and birthweight is deeply immersed in the surrounding socioeconomic context,[10] improvement of specific socioeconomic factors such as family income and purchasing power for basic foods might be more effective and efficient than the traditional interventions based on food supplementation programs. We know little about intervention techniques of that nature and for this reason much more attention should be devoted to the evaluation of those programs which aim to break the vicious circle of socioeconomic deprivation, maternal malnutrition and impaired intrauterine development.

FINAL COMMENTS

In summary, from the published literature as well as from our own data, we believe that an improvement in the nutritional status of pregnant women will lead to a significant decrease of the prevalence of low-birthweight in most poor communities. This in turn would help to reduce the high rates of infant mortality in these societies and would provide new generations a better chance to achieve their full genetic potential.

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ACKNOWLEDGMENT

We wish to express our gratitude to Dr. L. J. Mata, Head of the Environmental Biology Division of INCAP, for his encouragement and advice in the preparation of this paper.

Senator KENNEDY. Proceed.

Dr. LOWE. I would like to address the second issue, the social issue, which is also very clearly enunciated in your own statement.

Perhaps the most significant way of determining whether or not a woman or girl will become independent in later life is to determine the age at which she carries her first infant to term. This is not a figure I can document. It is a quotation from an analysis of what happens to poor children. However, the evidence is very strong that the young girl who becomes burdened with an infant is more likely to become dependent upon social resources. I think you've identified this issue in your own statement.

The problem, therefore, is to find a way to make these girls independent as they approach their 21st year. It is not my impression that we have evidence that programs which help them carry their children to term also make them economically independent.

The third issue is that of education.

Senator KENNEDY. Before we leave that, what evidence have you got that you ever tried it?

Dr. LOWE. Sir?

Senator KENNEDY. How can you draw your conclusion when you cannot submit evidence that you have tried it?

Dr. LOWE. There is a great deal of experience with private and public sector programs which assist these girls, and I think much of this can be documented for the committee.

The experiment proposed in the legislation has not been tried: that is, a program which supports statewide planning for a clearly defined population.

Senator KENNEDY. As I gather it—I do not want to be unfair, but let me just find out if I am being accurate—your suggestion is that the quicker that the young person gets on the social welfare system, the longer they are going to be on it, and any evidence that would indicate the contrary has been either not available or unconvincing to you. And therefore, if we start reaching out to these young people that are pregnant, that what we are doing is increasing the likelihood of significant expenditures by the social welfare system?

Dr. LOWE. I hope I was not understood to say that the sooner they get on, the more likely they are to stay on.

On the other hand, the figures we have available indicate that 60 percent of adolescent mothers will end up on welfare within 2 to 5 years of the birth of their children.

Senator KENNEDY. Is that not a fearsome indictment of your own present inadequate system?

That is the best comment I have heard this morning to say your own system is a bust.

Dr. LOWE. If the intention of the current system was solely to prevent pregnancies, then there would be no question that the statement would be an indictment of the system. However, my understanding of the complex set of services offered within the Department is that they do, in fact, offer alternatives. The question you so properly ask is whether both alternatives are spelled out with sufficient clarity so that a young person knows there are choices. I am unprepared to answer this question because I am unable to identify whether this true balance exists.

Certainly, I would not wish to be associated with the statement that the sooner a girl gets on welfare, the more likely she is to stay on. However, I did state that the younger she is when she carries her first infant to term, the more likely it is that she will never be able to become economically independent.

This is quite independent of whether she marries since our figures indicate that roughly 70 percent of teenage pregnancies are encountered in girls who are not married, and even among those who go on to marry, there is a very high rate of subsequent divorce. In effect, this problem involves a very complex set of social and economic and personal issues as you well recognize.

Senator **Kennedy**. Will you submit to us any studies that have been done showing that the kind of services that are being provided by this specific legislation are provided in any of your child and maternal health care centers, and the results of these programs.

Dr. **Lowe**. I would be glad to provide the studies.

[The information referred to and subsequently supplied follows:]

Comprehensive Programs for Teen-Age Mothers to Become Economically Independent

Few studies have examined the effect comprehensive programs for teen-age mothers have had on the woman's ability to become economically independent. Evaluations which have been conducted on several of the most comprehensive programs demonstrate their short-term effectiveness in improving the health status of the woman and her infant, and in decreasing the incidence of school dropouts and repeat pregnancies. Their long-term effectiveness is not so clear. After the women leave a program, but while they are still teenagers, a large number experience repeated pregnancies, drop out of school and do not attain economic independence.

Attached studies:

1. Klerman, L.V. and Jekel, J.F., *School-Age Mothers, Problems, Programs, and Policy.* Hamden, Conn., 1973.
2. Gold, Ann, et. al, *The Atlanta Adolescent Pregnancy Program: A Profile of the Student Mother* , Final Report, HEW Grant No. MC-R-130063-010, Sept., 1974.
3. Schlesinger, E., et. al. *Operational Research in Maternity Care of Adolescents* , Report of HEW Grant No. MC-R-420034-04-0, June, 1972.

School-Age Mothers

Problems
Programs
& Policy

by Lorraine V. Klerman
and James F. Jekel

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Problems, Programs, & Policy

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by
Lorraine V. Klerman, Dr. P.H.
and
James F. Jekel, M.D., M.P.H.

From the Department of Epidemiology and Public Health
and the Department of Obstetrics and Gynecology
Yale University School of Medicine

Copyright © 1973 by The Shoe String Press, Inc.

First published 1973 as a Linnet Book,
an imprint of The Shoe String Press, Inc.,
Hamden, Connecticut 06514

Library of Congress Cataloging in Publication Data

Klerman, Lorraine V
School-age mothers.

1. Pregnant schoolgirls—United States. 2. Maternal and infant welfare—United States. 3. Unmarried mothers—United States. I. Jekel, James F., joint author. II. Title. [DNLM: 1. Illegitimacy. 2. Maternal health services—U. S. 3. Pregnancy—In adolescence. 4. Poverty. 5. Student dropouts.
WA310 K64s 1973]
LB3433.K55 1973 362.8'3 73-11576
ISBN 0-208-01412-8
ISBN 0-208-01413-6 (pbk.)

Report of Research Grant MC-R-090048 from the Maternal and Child Health Service of the United States Health Services and Mental Health Administration to Yale University School of Medicine, Department of Epidemiology and Public Health and Department of Obstetrics and Gynecology, 1973.

Manufactured in the United States of America

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Foreword

Ten years ago the Children's Bureau of the United States Department of Health, Education, and Welfare initiated a program to meet the needs of school-age mothers. There were then approximately 100,000 births annually to girls less than 18 years of age. Most of these girls were dropped from school early in their pregnancy and discouraged from returning after the baby was born. Indeed, pregnancy was the major known cause of female school dropouts. For the minority-group girl—Black, Puerto Rican, Chicano—the voluntary child welfare and family agencies were providing neither counseling nor adoption services. Little effective planning was done for the mother and baby. Health services for minority-group girls consisted of delivery in a crowded municipal hospital with little if any prenatal or postpartum services. Family planning services were not generally available to school-age girls but were directed primarily at married middle-class women. Thus new families were in the process of development in hostile or, at best, neglectful situations. In a high proportion of cases, somewhere around 40% of the total, the girls remained unwed and the vast majority of these formed single-parent families. Approximately 60% of the girls giving birth were married by the time the child was born, but their fragile marriages were often precipitated by the pregnancy and frequently ended in divorce within five years.

This social problem was unique in that it was a consequence of the interaction of some of the most powerful social issues of the country's historical and cultural heritage: poverty, discrimination, and sexuality of youth. Further exacerbating the problem was its linkage to the welfare system, particularly the Aid to Families with Dependent Children program, which was under attack for supposedly promoting further births out of wedlock through a program of financial assistance.

All the social statistics indicated that the number of school-age girls giving birth was increasing and would continue to increase, and that the serious problems attendant to early childbearing would persist. Maternal and infant mortality studies already had amply identified the young mother, the poor mother, and the black mother as being "high risk." Educational statistics had found pregnancy to be a major cause of girls not completing high school; adoption statistics and birth records showed that minority babies were not readily being placed; and fertility studies revealed that young mothers had repeated unwanted pregnancies. Welfare workers reported difficulties among girls rearing their children while living in the maternal home as children of their own mothers. The sociologists and psychoanalysts had developed theoretical hypotheses concerning the underlying dynamics of pregnancy out of wedlock. The legal and legislative aspects of the issue had been studied with respect to state laws, court cases, and administrative practice and regulations. In sum, there was no lack of hard data and case descriptions to document that the problem existed and was increasing in size and complexity.

Further, it was clearly a community problem and required a strategy of programming that entailed comprehensiveness through integrated services rather than the continuation or expansion of an ineffectual approach based on isolated health care, social services, or special education. The immediate task was to provide the necessary services to meet the multiple needs of the pregnant school-age girls, and the long-range solution was to prevent adolescent pregnancy, or at least reverse the upward trend.

The approach initiated by the Children's Bureau was to establish a demonstration program that would continue the girls in school and provide in some closely linked manner the necessary health and counseling services. The primary objectives of the project, which began in 1963 at the Webster School in the District of Columbia, were to provide continuity in education with a curriculum that met the special needs of the pregnant girl, reduce the risk of a poor pregnancy outcome, and enable the girl to cope with her immediate and future social situation in the context of her family or an independent living arrangement.

From this initial demonstration using a school system as a base, other projects were supported, using a health facility and a welfare agency as other resources for program development. The emphasis was on the development of comprehensive services through the assistance of whatever community institution was willing to assume responsibility and had the necessary capacity for doing so. Funding was also provided to different groups to develop ways of evaluating these programs and in a selected number of instances to actually conduct such evaluations. The respective public health programs of Yale University, Johns Hopkins University, and the University of Pittsburgh undertook such tasks. Out of this effort came the study covered in this book, the most definitive evaluation yet conducted of two alternative approaches to the provision of services for pregnant school-age girls.

It was apparent from early evaluations of the Webster School project that many of the program objectives were achievable. It was also clear, however, that problems existed. Specifically, these related to postpartum reentry into the school system and the lack of adequate day-care arrangements for the infants and of appropriate family planning services and counseling. Family planning information and services were prohibited in the Washington school system, as in most of the nation's school systems at the time the first comprehensive programs were begun.

The service delivery aspects of comprehensive programs also needed to be improved. The health component in many programs appeared to be doing its tasks best of all, particularly when there was linkage with a maternity and infant care project supported through the Maternal and Child Health Service of the Health Services and Mental Health Administration. There was no provision of meaningful curriculum and learning materials for the antepartum period. Schools found it necessary to participate in the development of day-care services for the infant if the young mother was to return to and remain in school. The counseling component seemed to be one of the most essential, yet least satisfactory, program areas. There was a lack of experience with the young mother who kept her infant. Many programs used inexperienced social work staff or those with limited training in this area. Almost nothing was planned for the father of the baby, and although awareness of the need to include him in the program eventually developed, a lack of understanding of his needs, and the limited resources for working directly with him, hampered the effort. Neglect of the baby's father is still a major omission in programs and is related closely to our cultural attitudes toward accepting the role and behavior of these boys while labeling the pregnant girls as socially deviant.

As a result of the evaluation of the Webster School program the Children's Bureau modified its strategy to focus on the problem of "institutional change." The study indicated that the girls would continue to learn in school, and that the school system was an appropriate community institution to carry through the task of providing the comprehensive services required by girls who were pregnant. A small project was supported at Yale University—the Cyesis

Program Consortium—which actively disseminated research findings, evaluation reports, program descriptions, reviews of legal hearings through established publications, a newsletter entitled *Sharing*, regional workshops, national conferences, consultations, and speeches. The goal was simultaneously to expand the number of school systems that would provide the necessary services, upgrade the quality of the existing services, and pinpoint problems for future research.

The Consortium, as it came to be called, was eminently successful, though mistakes were made; and from a few programs ten years ago there are now more than 250 programs serving more than 50,000 school-age pregnant girls annually. An independent national organization was established by a group of program leaders, the National Alliance Concerned with School-Age Parents (NACSAP). Its purpose was to provide a broad-based membership group which could meet the demand for services through support of the development of programs. As with many membership organizations, it ran into problems of inadequate financial resources for carrying out its objectives while at the same time building its membership.

The federal government coordinated various efforts in the movement to develop and improve comprehensive service programs. Through an Action Memorandum from the Secretary of the Department of Health, Education, and Welfare, Elliot Richardson, a Federal Inter-Agency Task Force on Comprehensive Programs for School Age Parents was organized in 1971. An overall strategy was formulated for a national attack on the problem involving further expansion of the efforts of the Consortium, renamed the Consortium on Early Childbearing and Childrearing, with the involvement of NACSAP in assisting local community implementation.

In perspective, the study in this book illuminates the process, problems, achievements, and disappointments in the actual organization of comprehensive delivery systems in two separate communities early in the history of the field. The knowledge gained through the experience of the program staff and those engaged in the evaluation is critical for any further expansion of comprehensive services. These data, in conjunction with the evaluation of the Webster School program, the Services to Young Family program of Cuyahoga County, Ohio, and the survey studies conducted by Johns Hopkins University and the University of Pittsburgh, begin to provide information useful for further planning, social policy formulation, and program development.

There has been remarkable growth, understanding, and change in the development of programs for school-age parents. Attempts to deal with this social issue at an institutional and program level simultaneously enriched both aspects and contributed to the overall social change which is still in progress. This effort, which began before federal support of family planning, before the reexamination of women's rights and roles in our society, before the development of infant day care, and before the large-scale effort at education for parenthood, contributed to and benefited from all these significant social issues.

Within the next five years, the problem of school-age parents will significantly decrease in size, but not disappear. There will be a group of girls who will become pregnant by design or indifference and, for these, changes in the social context will have less effect than psychological habilitation and rehabilitation. Existing and new developments in birth control, including abortion, will reduce the number of unwanted pregnancies in the total population, including youth. In the meantime, there are many young people whose lives will be fuller and more rewarding as a result of the comprehensive programs for the young parent.

From the beginning it was considered necessary to conduct evaluations of the various programs. This report represents the most comprehensive evaluation of two such programs and provides much information for those concerned with program improvement as well as raising some questions for policy makers.

Charles P. Gershenson
Visiting Professor of Child Development
Brandeis University

Director, Research Division
Children's Bureau

Preface

This report is the final product of a research project funded from July 1, 1967, through June 30, 1973, by the Maternal and Child Health Service (formerly the Children's Bureau), of the Department of Health, Education, and Welfare. Its purpose was to evaluate two comprehensive service programs for pregnant school-age girls. During the project's six years, the study and its findings have been the subject of eighteen journal articles and several presentations before professional and community groups. A list of the publications is included in Appendix A. The full scope of the study findings, however, appears here for the first time.

Acknowledgments. Although as study director and principal investigator, respectively, for most of the study period, we accept full responsibility for the material included in this report, we wish to acknowledge with thanks the many individuals and organizations whose cooperation made the project possible. Our greatest debt is to more than four hundred young women who agreed to participate in the study so that more effective programs could be planned for other school-age pregnant girls.

We are also grateful for the dedication of the many individuals who provided the services that together made the programs "special." We wish especially to acknowledge the contributions of the service personnel who spent countless hours filling out research instruments and suggesting ways to improve the study. They shall remain nameless since they, like the young mothers, were being "studied." Their anonymity in no way diminishes our gratitude.

We are indebted to another group who contributed time and administrative support to the programs and the research effort. They include the following individuals associated with the Yale-New Haven Medical Center: Drs. Edward J. Quilligan and (later) Dr. Nathan Kase, Chairmen of the Department of Obstetrics and Gynecology; Ms. Vera Keane, M.S.N., formerly Chairman, Program in Maternal and Newborn Nursing; Ms. Catherine O'Hare, A.C.S.W., Chief of Medicine, Surgery, and Obstetrics and Gynecology Social work, and (later) Ms. Ruth Breslin, A.C.S.W., Chief Social Worker, Department of Obstetrics and Gynecology and Services to the Newborn; and Ms. Margot Taylor, R.N., Head Nurse, Young Mothers Clinic. Those associated with the New Haven Board of Education who helped greatly were Drs. Achille Riello and Raymond Acunto of the Department of Pupil Personnel; and Ms. Mary Sherlock, Director, and Ms. Elizabeth Celotto, Head Teacher, Polly T. McCabe Center.

In Hartford our appreciation goes to Mr. Richard Lewis, formerly Executive Director, and Dr. Delores Taylor, Director of Research, Child and Family Services of Connecticut; Ms. Nan R. Malkin, A.C.S.W., formerly Project Director, and Mr. Frank Rose, School Director and Head Teacher, Inter-Agency Services; Dr. Ellis Tooker, formerly Assistant Superintendent of Schools, Hartford Board of Education; Drs. Jessie Parkinson and Claude A. Lancelot of the Connecticut Maternity and Infant Care Project, Hartford Health Department; and the private physicians who made their records available to us.

Special thanks are owed to Dr. Charles P. Gershenson, Director, Research Division, Children's Bureau, for his valuable insight and encouragement during the early part of the project, and to Ms. Gloria Wackernah, Grants Management Officer, Children's Bureau and Maternal and Child Health Service, for her indispensable guidance and support through the complexities of research grants for almost six years.

We are grateful for permission to reprint sections of this report which have appeared previously in *Health Education Monographs, 29*, 11–27, 1969; *The Journal of School Health, 40*, 168–72, April 1970; *American Journal of Public Health, 60*, 2289–2301, December 1970 and *62*, 1606–19, December 1972; *American Journal of Obstetrics and Gynecology, 112*, 9–19, January 1972; and *Social Psychiatry, 8*, 16–25, 1973.

This study would obviously have been impossible without the hard and dedicated efforts of many research staff members and students. We thank them individually and as a group for their contributions, which often were beyond those required by their jobs. We hope each one feels that this report made the effort worthwhile. The members of the research staff are listed in Appendix B.

Last but far from least, special gratitude and apologies go to our families who patiently endured countless hours of absence of mind or body during the design, execution, and reporting of this project.

Brandeis University, L.V.K.
Waltham, Massachusetts

Yale University, J.F.J.
New Haven, Connecticut

1973

1 School-Age Pregnancy in a Wide Perspective

Since the mid-1960s, comprehensive programs have been developing all over the United States in an attempt to provide long-neglected medical, social, and educational services to school-age mothers. Now that the initial excitement has passed, serious questions are being asked by legislators, administrators, and the professionals providing the services: Is anything being accomplished? Are all those who need help being reached? What becomes of these young mothers?

This report* will try to answer these questions on the basis of a study of two such service programs. At the start, however, a more important question must be raised: Are these the most meaningful issues? Although the comprehensive service programs appear daring because they challenge the long-accepted pattern of ignoring young mothers, especially those who become pregnant out of wedlock, they were developed largely by professionals who shared the cultural perspectives of current American society. These perspectives were not necessarily bad and were probably unavoidable, but sometimes they were narrow. The questions being asked by legislators and others also may have too narrow a focus. To the question, "Is this a good approach to rehabilitation?" the answer might be "Yes, if rehabilitation is your goal, but what is really needed is prevention!" Similarly, the answer to the question, "Is anything being accomplished?" might be, "This approach to programming does accomplish something, if society is not going to change in any fundamental way; but what is really needed is a more fundamental change."

In order to place the current services for school-age parents in a wider perspective, this report examines the premises upon which most of the programs have been built, suggests alternative ways society could approach this phenomenon, and attempts to answer the more specific questions.

Why is School-Age Pregnancy Considered a Problem?

Attitudes toward pregnancy vary with time and place. In some cultures a pregnant woman is confined and her activities limited; in others, the condition is treated lightly and she continues her usual pursuits (Mead and Newton, 1967). Western society, for example, in the last fifty years has moved from the treatment of pregnant women as "sick" individuals, in need of special care, toward the definition of pregnancy as a normal condition and a healthy one unless there are some specific indications of pathology (DeLees, 1928; Eastman, 1959; Rosengren, 1961; Eastman and Hellman, 1966; McKinlay, 1972). If pregnancy is a normal part of female life, why is pregnancy in girls of school age considered a problem to which the American society must devote study and resources? There are several answers to this question; some deal with medical issues, others with the values attached to sexual activity and family life in this country, and still others with economic issues.

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*The co-authorship in chapters 1 and 2 of Philip M. Sarrel, M.D., Yale University School of Medicine, is gratefully acknowledged.

Medical Issues. The medical issue is easiest to explain, although it is often difficult to separate the influences of social from physiological factors. Many studies have found higher incidence of illness among pregnant teenagers than among women pregnant in their twenties and thirties. These conditions include toxemia, anemia, infection, and difficult labor because of an immature pelvis. These in turn may lead to premature births, stillbirths, perinatal deaths, and physical and intellectual impairment in the infants (Israel and Woutersz, 1963; Hassan and Falls, 1964; Stine et al., 1964; Wallace, 1965; Zackler et al., 1969). Although Semmens and Lamers (1968), working with middle- and upper-class school-age girls in a system where medical care was readily available, have shown that their young patients have no greater incidence of most obstetrical problems than older women, most medical studies of school-age mothers have focused on the economically deprived who as a group have increased obstetric risks.

Typically, the young women studied have delivered on the public rather than the private service of a hospital and have sought their prenatal care in outpatient clinics. Very few daughters of middle-class or affluent families are included in early-pregnancy studies, not because they do not become pregnant, because the indications are that they do (Wallace, 1965; Siker and Fritch, 1967), but because their families find ways of dealing with early pregnancy which keep the girls out of the populations usually included in these statistics. Data are not easily available on the incidence of illness or problems for the middle-class pregnancies that terminate in abortions or deliveries on the private services of small hospitals. Nevertheless, these data are essential to an understanding of the relative contribution to the complications of pregnancy made by age, as opposed to such social factors as inadequate or late prenatal care, poor diet, crowded housing, and other environmental handicaps.

Despite these problems it has been possible to determine with reasonable confidence the age at which the statistical risk of harm to mother or infant is increased. Obviously this varies with the individual female and her stage of physical and sexual maturity, which is related to age at onset of menstruation (menarche) (Zacharias et al., 1970). There is general agreement that pregnancy in 17- through 19-year-olds poses few medical problems not seen in equal numbers in women in their twenties. A recent report of the National Academy of Sciences (1970, pp. 140-41) states:

> *The Working Group agreed that girls who become pregnant before they are 17 years of age are at great biological and psychological risk . . . Pregnancy after this age should not present special biological hazards. This conclusion is supported by natality and mortality data indicating that the course and outcome of pregnancies of girls 17 to 20 years of age resemble those of young mature women, that is, women 20 to 24 years of age.*

There appears to be an increased risk of problems from age 15 or 16 on down, particularly within the first two years following the onset of menarche. These problems include prematurity, toxemia, anemia, and difficult labor.

Clear evidence of the effect of early pregnancy on the psychological health of the mother and child is even more difficult to obtain because of the overwhelming weight of social factors. Certainly young pregnant girls and mothers exhibit a high rate of adverse psychological conditions, but little is known about the cause (Gabrielson et al., 1970; Lewis and Lewis, 1971; Lewis et al., 1973). Are they intrinsic to the pregnancy? Did they predate the pregnancy in a latent form and surface only under stress? Are they a result of society's punitive attitudes toward the socially deviant?

Social Expectations. This cursory examination of the medical reasons for considering school-age pregnancy a problem already has introduced the second factor contributing to the definition, namely society's perception of the "good life." The American middle-class expectation of the girl of high school age or younger includes school attendance, an active social life, and responsibilities within the family in which she has been brought up. Pregnancy is accepted, looked forward to, and even expected, but only after the sexually mature girl has graduated from high school and has been married a minimum of nine months, although there is some acceptance of high school marriages under exceptional circumstances. While there are now some breaches in the wall of custom, convention still calls for a baby to be raised by a married father and mother who live apart from their parents, and for the father to provide enough income for the needs of the family.

The pregnant school-age girl is at variance with many of the expectations of the American middle class if she chooses to carry the pregnancy to completion and then keep the baby. The girls who have abortions or who surrender their infants are not penalized permanently. The "problem" centers around the school-age mother who keeps her child. In most cases she has not yet graduated from high school; she frequently is not married when the baby is born; and she is even less likely to have been married when the infant was conceived. If the young mother is unmarried and brings her baby home to live in her parents' residence, the mother and child become economically dependent upon her parents or upon some form of welfare. American society conceivably could consider this life style an acceptable alternative to the stereotype previously drawn, just as it accepts attending college and depending economically on parents as an acceptable, and even laudatory, alternative to entering employment and becoming financially independent. But for many reasons, society has labeled the pregnant school-age girl and mother as deviant. The deviance is a problem in proportion to its visibility and its duration. If the young mother is unmarried, white, and gives the baby up for adoption, white society tends to view this as a small problem despite the fact that it may be very traumatic to the mother, because she soon can return to the expected adolescent pattern and she has contributed to the currently inadequate pool of white babies available for adoption. Unmarried white mothers who choose to keep their infants and unmarried black mothers who are more or less forced to by the small demand for adoptive black babies, are seen as greater problems.

Economic Factors. More subtle factors, including economic and racial ones, place a stigma on early and/or out-of-wedlock pregnancies. School-age pregnancy frequently leads to welfare dependency, at least temporarily and often for a prolonged period. This is frowned upon in our society. The mother has difficulty finding someone to care for the infant if she wishes to attend school or go to work and difficulty finding work if she does not have a high school diploma. If she is not married, support from the putative father is problematic. Even if she marries, many studies, including this one, indicate that the marriage will be to someone close to her own age. Therefore the husband will probably be 18, 19, or 20 years old, and he may not earn enough money to support himself, his wife, and his child unless he has a skilled trade. Thus, when the baby is kept, one of the frequent consequences among those already wholly or partially dependent upon public funds is to add another individual to the welfare rolls. For families which have barely been able to maintain financial independence, the extra burdens of a pregnancy and an infant may push the entire unit into at least partial welfare dependency.

Even if the school-age pregnancy does not result in increased welfare support, it may cause another economic problem: premature entry into the labor force. Under current conditions of less than full employment, there is little demand for teenage workers. The economy can be served better by completion of their high school education and perhaps a continuation to college or some technical institution to gain special skills. When, as a result of pregnancy, the young mother decides to leave high school before graduation or not to seek post-high school training, these decisions have an adverse effect on economic conditions because of the present structure of the labor market. The effect is similar when the putative father or young husband shortens his formal education or technical training in order to seek employment to support his child or his family.

Prejudice. The racial overtones to the designation of school-age pregnancy as a social problem are real. Inadequate financial resources, inaccessibility, and social mores have kept many black families from using the middle-class solution of abortion, adoption, or marriage, although this may be changing. Therefore the phenomenon of an infant being cared for by an economically dependent young mother is more apparent in the black population. Given the racial prejudices still prevalent in this country, a variant style of life whose principal adherents are black is likely to be labeled deviant, and, consequently, a problem for society. Significantly, when *Life* (Woodbury, 1971) wanted to feature a program for pregnant teenagers, it focused on a school in a middle-income white area.

Visibility. Additional factors contributing to the definition of school-age pregnancy as a social problem are the increasing numbers of such pregnancies and their increasing visibility. This is itself the result of many factors including the lowering of age at sexual maturity (Tanner, 1968; Zacharias, 1970), an increase in the number of teenagers in the population, and migration from rural to urban areas. The resultant of these factors is that more school-age girls are becoming pregnant and in a more confined area. One hundred pregnant school-age girls in an urban ghetto are more noticeable than the same number scattered over a rural state, even though they may not represent more of a problem to themselves or society.

Legitimacy. Little mention has been made of marriage and legitimacy for several reasons. Although many try to legitimize a pregnancy by marriage, early marriages have not proved stable. It therefore appears unwise to encourage teenagers to marry to legalize their sexual activity or their offspring. The rapid making and dissolution of a marriage, with all its legal and financial complications, may be more of a psychic trauma to the mother and her child than an attempt to raise a child within her parent's home or independently, or an attempt to live unmarried in a temporary but loving relationship with a man. Although generally it is considered desirable for a child to grow up in a home where two parents have a stable, affectionate relationship, some evidence suggests that the presence of a poor father may be worse than the absence of a father (Herzog and Sudia, 1968). Certainly, the last remnants of the stigma of illegitimacy should be lifted from infants born outside of marriage.

Causes of School-Age Pregnancy

Early Sexual Experiences. Any discussion of school-age pregnancy must consider the causes of early sexual activity. Vincent

(1961), reviewing the evolution of thinking concerning the causes of out-of-wedlock pregnancy, found that one idea after another had its fashionable period. Prior to 1930, "theories pertaining to moral and inborn sources of behavior" were stressed, and the emphasis was "on immorality, bad companions, and mental deficiency as causes of illegitimacy." During the 1930s greater interest was directed to environmental sources of behavior, such as broken homes and poverty. During the late 1930s and 1940s the concept of "culture" was dominant and illegitimacy was considered to be part of a way of life for certain population groups. Since that time greater concern has been shown for psychological and psychiatric explanations of behavior, so that out-of-wedlock pregnancy has frequently been viewed as the result of emotional problems, or as a means to try to satisfy unmet emotional needs. Many or all of Vincent's factors have been implicated in the etiology of early pregnancies, whether in wedlock or out. Yet Herzog (1967) stated:

> *The factors that so far do not appear to stand up under analysis as the major cause include low intelligence, broken homes, geographical mobility, and psychological or interpersonal disturbances. Any of these factors may be involved in specific instances, but none can be held mainly accountable for the problem.*

Most recently, the association between poverty and school-age pregnancy has been stressed. Economic deprivation, inadequate housing, overcrowding, and racial discrimination, to mention a few of the adverse conditions which afflict many groups in American society, may not "cause" early sexual activity and pregnancy, but by excluding opportunities for a satisfying, fulfilling, and exciting life, they may make pregnancy and child-rearing seem an avenue out of boredom, rejection, and depression, and the only available positive expression of the "life force." The association between poverty and early sexual activity need not be causal, however. Both poverty and high fertility may result from such factors as discriminatory employment practices. If a man is unable to find a job because of discrimination, over which he is powerless, siring children may be one of the few available avenues for demonstrating his manhood.

Early sexual experiences may be related to what Vincent (1961) has called the hypocrisy of our society, in which we "inadvertently encourage, if not explicitly condone, the cause (illicit coition), and explicitly censure, and condemn the result (illicit pregnancy)." American society uses sex as a means to profit in all the mass media and yet is disturbed when this stimulation increases sexual awareness and activity. Given, then, the existence of teenage sexual activity and the unlikelihood of a reversal of this trend, must young girls become pregnant?

Inadequate Contraception. School-age pregnancies can be classified as the accidentally pregnant, the intentionally pregnant, the indifferent, and the forced. Little can be done to prevent forced or intentional pregnancies. The strongest hope of prevention lies with the accidentally pregnant and then possibly with the indifferent. Through better education, some pregnancy-producing myths can be exploded (e.g. "You can't become pregnant the first time," or ". . . if you don't come," or ". . . in between periods"). Education also might reduce contraceptive failures that are really due to misuse, although some real failures always will occur. For such events, and for cases of forced pregnancies, abortion should be readily accessible. It should be noted, however, that doubts exist about "accidental" pregnancies. Some psychiatrists feel that the desire to prove one's feminine identity is so strong that most if not all pregnancies are intentional, although the thought may not always be available to the conscious mind (Lehfeld, 1959; Lidz, 1969). If this were true, then education could not be expected to make much of an inroad into the rate of teenage pregnancy, and only changes in life circumstances, which would make other motivations achieve primacy, might have an effect.

Desire for Pregnancy. Why would school-age girls want to become pregnant—or feel indifferent enough about the possible outcome not to avoid intercourse or prevent its sequelae? Two reasons have already been suggested: to provide a change from a dreary existence and to prove that one really is a woman. Many others have been offered, varying as widely as the disciplines that have addressed themselves to the subject: to "hold" a boyfriend, to take revenge on one's parents, to escape from school, to gain prestige or attention from one's peers, to be accepted as an adult, to have someone to love, to have someone who will love you, or to provide a child for the girl's mother who can no longer bear. These reasons are not necessarily more pathological than the reasons for which older, married women often desire a child—to relieve boredom or to save a shaky marriage.

Programs in Other Countries

The United States has started late to address itself to the needs of school-age mothers. Other countries accepted sooner the reality of early motherhood and began providing services specifically for this group. Moreover, each country's approach to early motherhood reflects that society's system of values. American society has generally set such social goals as stable family life with two parents present, completion of basic education, and economic independence for every family. As a result, school-age pregnancy has become a problem to be denied or hidden. This has led to exclusion from school, forced marriage, and shame for the child. These punitive measures destroy self-esteem and work to prevent young mothers and their infants from achieving the very goals society espouses.

Socialist countries, such as Yugoslavia, believe that all citizens, including mothers, should be productive members of the industrial society, and their child-rearing practices reflect this orientation. The society does not want a mother to remain at home for six years or so after the birth of a child, regardless of how the child is conceived; therefore there is heavy reliance on state-run day-care and child-rearing centers. No distinction needs to be made on the basis of maternal or marital status; nor does the child's legitimacy status have any bearing on his potential productivity.

In countries with a social welfare orientation, such as Sweden, emphasis has been on removing the stigma of illegitimacy and providing for the well-being of the child. Thus a child born out of wedlock in Sweden has full rights of inheritance and is supported by both the mother and father. Automatic salary deductions ensure the child's support. Women with children are titled Mrs. whether or not they ever marry. Although half the women bearing children out of wedlock eventually wed the father of the baby, they do not do so because of social pressure. Programs like the Modrejaelpen in Denmark address themselves to total family needs by providing couples with counseling, financial support, housing, vocational training, and day care for children.

Some persons in the United States feel that the provision of adequate services to school-age mothers (or parents) will encourage teenage sexual activity and increase out-of-wedlock deliveries. Yet the Dutch have a system of centers for unwed mothers and still have one of the lowest known rates of out-of-wedlock pregnancies in the world.[1]

These European programs demonstrate that societies can provide services that enable individuals to develop healthfully, regardless of the age of the mother or legitimacy status of the infant. To accomplish this in America would require changes in social attitudes and programs.

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[1] Furstenburg (1971) has reported that providing contraceptives to school-age girls with one child does not promote increased sexual activity.

A System of Approaches

Acceptance. An important first step would be the acceptance of school-age pregnancy as a reality of American life which is unlikely to disappear. Acceptance need not mean that school-age pregnancy is desirable, but it forgoes the *denial* of the problem (e.g. by excluding those who show evidence of adolescent sexual activity or forcing marriage to "legitimize" it); and it discards punitive approaches, which isolate and reject the young mother, harm her self-esteem, and limit her alternatives so that she cannot cope with her problem. This approach would help solve the "problem" by removing the stigma. School-age pregnancy would not be encouraged, but neither would it be considered so deviant as to require penalties and the withholding of needed services. This change in attitude is an essential step if school-age parents and their children are to be reintegrated into our society. Attitudes toward school-age pregnancy have been changing since 1960, but progress is painfully slow, especially among those elements of society having the greatest power to change our institutions.

Provision of Preventive Services. A change in attitudes would expedite the development of preventive educational and social services. Appropriate help could be given more easily so that individuals and society need not be penalized with unwanted children. Education about the sexual aspects of social life could be provided so that teenagers could make intelligent choices instead of being misguided by incorrect information or social pressure. Contraceptive advice and devices could be made easily accessible for young men and women who did not want children. Similarly, abortions could be obtained by those who neglected to use contraception but really did not want a child, who experienced contraceptive failure, who were victims of forced sexual relations, or who realized only after conception they were not yet ready for motherhood. These measures should ensure that only those who wanted children would have them.

Alleviation of Poverty. Pregnancies resulting from an intentional act or from indifference cannot be prevented by the triad of education, contraception, and abortion. The prevention of such pregnancies requires changes in social conditions. Although there is ample evidence of sexual activity among teenagers of all social classes, young mothers give birth at a higher rate in areas of low socioeconomic status. Perhaps if economic conditions were improved and discrimination against the poor and members of minority groups were removed, the school-age girls and their sexual partners might find cogent reasons for delaying pregnancy and the responsibilities of a family. But under the present circumstances, such middle-class goals as completing high school, going to college, and obtaining a better job are not common among most of those who live under depressed conditions.

Economic deprivation, with its limited hope of future betterment, leads to thoughts of the present and its sources of enjoyment, or at least release from boredom or depression, rather than to some doubtful future. Sexual activities, pregnancy, and childrearing may provide such pleasure and release, at least for a short time. The situation surrounding intercourse, pregnancy, and childbearing is exciting, different, and attention-provoking, and it may provide a modicum of love and caring in an otherwise drab and depressing existence. Elimination or reduction of poverty might reduce pregnancies and births which arise from these circumstances. This goal will be even more difficult to achieve than the change of attitudes and the provision of preventive services, but several writers, including Herzog (1967) and Howard (1968), have cautioned against expecting too much from service programs in the absence of these kinds of changes.

Institutional Support for Alternative Life Styles. Young mothers should be allowed to rear children without mother and child being penalized. Some may wish to complete their high school education and even proceed to college or technical training, and they should find financial assistance and day-care centers available to enable them to continue their education without neglecting their infants. But what about young mothers who prefer to devote themselves full time to their children—in their parents' home, with a husband, in a communal facility, or independently? Such young mothers need financial support and possibly, because of their immaturity, physical and educational assistance with child-rearing. Additional institutional supports that would be necessary include housing suitable for young mothers who were trying to rear their children alone, educational programs to help them learn new child-rearing patterns, and day-care centers to provide them with some freedom for education, employment, and recreation.

When her child or children reached school age, the mother might be ready to seek employment. At this point she would need to complete her education in order to enter the job market without disadvantage. Returning to a traditional high school, where her classmates would be eight to ten years her junior, would obviously be impossible. Instead, vocationally oriented adult institutions would be necessary, with an alternative college preparatory sequence available for those who made a late decision to seek a career requiring advanced education. In other words, the educational systems need to be flexible enough to provide not only for those girls who finish high school at the usual time but also for those who interrupt their education for short or long periods of time, for whatever reason.

Given the present occupational structure it might even be beneficial to some women not to seek jobs until their middle or late twenties, with their childbearing and early child-rearing years behind them. This sequence might be more advantageous for employers than the current practice of most young women, who seek employment in their late teens or early twenties, stay with their jobs for only a few years, leave for childbearing, and then return in their thirties and need retraining. As in the case of education, flexibility in attitudes and institutions is essential in order to provide alternative routes into the labor market.

Four approaches to the problem of school-age pregnancy have been proposed: an acceptance of pregnancy at an early age as a social reality, the prevention of unwanted pregnancies or births, the alleviation of poverty, and the provision of institutional supports for alternative life styles. None of these seems fully acceptable at this time. Instead, the most prevalent strategy in contemporary American society is to provide services to the pregnant girl in such a way as to minimize the deviant aspects of her situation. This approach has led to the development of programs for school-age mothers across the United States.

Previous Programs for School-Age Parents

Prior to the 1960s pregnancy in school-age girls was largely ignored. The sexual maturation of the postwar babies, the migration of blacks and white marginal farmers from the South to northern urban ghettos, the war on poverty, and the racial disorder of the 1960s have all stimulated interest in social welfare problems, including the birth of infants to very young mothers. The recent rapid growth of the welfare rolls which at one time or another support a large percentage of school-age mothers and their infants, and the public's urgent demand to reduce the numbers dependent on public support, has kept interest in this problem at a high level.

Before the advent of special programs, school-age pregnant girls obtained medical care from private physicians if they could afford it; from maternity homes if they availed themselves of that service and indicated an interest in giving the baby up for adoption; from the crowded, impersonal obstetric clinics of general hospitals; or they received none. Few received any special counseling with regard to their future needs, except those in maternity homes or those who found their way to family service agencies, usually because they wished to place their infants for adoption. School continuation was nearly impossible since pregnant girls were usually excluded from regular classroom attendance. A few enlightened communities provided home instruction (Holmes et al., 1970), but this was frequently inadequate, both in quality and quantity. The teachers were often unsympathetic, if not outright judgmental, and the students suffered also from the absence of peer group stimulation as well as from a meager amount of teacher contact.

Sometimes a young mother was allowed to return to a school after the delivery, although not always to the school she had left, presumably to prevent embarrassment (although it is unclear whether the faculty, the students, or the young mother was being protected). In other school systems, permanent exclusion from school after a pregnancy was mandatory by state law.

Obviously, these makeshift arrangements did not reduce the problems surrounding school-age pregnancy. In fact, they contributed to them. Thus, when the idea of providing specialized services to this group evolved, the concept spread rapidly and was met with much enthusiasm—the problem had become more apparent and it was obvious that existing mechanisms were inadequate. New ideas were essential.

One of the first programs was developed in Washington, D.C., in the Webster School. Not only could the girls continue classes, but they also were routinely provided with social services. Although medical care was not available on the premises, students were assisted in initiating such care, and its maintenance also was required for continuation in the program. The Webster School became a model for other programs which developed around an educational focus, i.e. intake through the school, social services attached to the school, and medical care obtained elsewhere. Another early program was developed by the Los Angeles City Unified School Districts, where the schools provided educational and social services in close cooperation with the County Health Department which provided the medical services (Lyons, 1968). Chicago was also an early innovator (Wright, 1966).

During 1965 and 1966 several significant programs were begun, two of which had a strong medical emphasis. In New Haven, Connecticut, an obstetric resident at Yale-New Haven Hospital began to provide special care for the teenagers enrolled in the obstetric clinic of the hospital (Sarrel, 1967). This grew into a special clinic separate from the other obstetric clinics. A social worker was assigned to the clinic for routine casework with the teenage patients and she began group work as well (Sarrel and Klerman, 1969). In 1966 an educational component was added to that program: the Polly T. McCabe Center (Holmes et al., 1970) was established. The Young Mothers Program was one of the projects studied in the present research project. In Syracuse, New York, the Young Mothers Educational Development (YMED) program came into being through a similar sequence (Osofsky, 1968; Murdock, 1968).

Other programs, developed within family service agencies or YWCA's, began by providing special casework or group meetings for school-age pregnant girls. These often led to pressure on the school system to provide more educational opportunities for the girls and on the medical facilities to pay more attention to their need for obstetric care. The Inter-Agency Services program of Hartford, also one of the programs studied in this research, was begun through such a sequence.

Program Limitations. By 1968 when the Children's Bureau began to tabulate the growth of programs for school-age mothers, there were 35 known programs across the country; by 1972 there were over 200. These programs usually have three components—medical, educational, and social services—with varying degrees of integration. They attempt to guide their clients through the antepartum and delivery period and sometimes for a few months after the birth of the baby. Although it is often difficult to determine their specific goals (either because they are never enunciated or because they are too broad), an analysis of the services provided and the evaluations that have been published or otherwise communicated make clear that their general objectives are to return school-age mothers to the mainstream of American life. "Repeat" pregnancies are to be avoided, as is dropping out of school. Success generally is measured by high school graduation and by the interval between pregnancies.

Comprehensive programs for the already pregnant schoolgirl, as they commonly function at present, comprise short-term intervention with short-term goals: a healthy mother and baby, continued education, and the solution of immediate social problems that may complicate the life of the mother. The programs usually are not able to maintain contact with the young mother long enough to have a sustained effect on her life or that of her infant. (The actual duration of program impact is one of the more important research questions investigated in this study.) Programs of this kind will always be needed, but in the absence of the other suggested approaches, they may be of limited effectiveness.

Evaluation. Relatively few comprehensive programs have had the time, staff, or funds to make an in-depth assessment of what they have accomplished. The remainder of this report will present findings from a study of two programs designed to serve already pregnant school-age mothers, and a comparison group of mothers receiving services typical of those provided before the appearance of the special programs. The report will attempt to answer some of the questions posed at the beginning of this chapter, particularly, whether or not these programs were effective, and, if so, with whom.

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2 The Programs, the Service Personnel, and the Clients

The Service Programs

The two special service programs were relatively new when the study began and, to a large extent, their policies and their personnel reflected their experimental nature. The pregnant girls served did not have to share space, time, or personnel attention with older women. They did not deal with professionals set in their ways after many years of practice, and their needs did influence service patterns. Some conception of what the "new look" meant can be obtained by comparing the programs with the conventional obstetric clinic described by Schlesinger et al. (1962) who, while generally stating that the clinic failed to meet the emotional needs of its patients, singled out patients in the younger age groups as having even greater difficulties communicating with staff. The new programs also can be compared with the lack of social services documented by Teele et al. (1967) and with the educational situation described by Kelley (1963).

Young Mothers Program. The major program studied in this research was the Young Mothers Program (YMP) in New Haven.[1] The YMP offered coordinated medical care, social services, and education.

Eligibility: The Young Mothers Clinic at the Yale-New Haven Hospital (Y-NHH) accepted all pregnant girls 18 or under, regardless of marital status or residence. Pregnant girls reached the clinic by various routes. Many heard about it from other pregnant girls or friends and came directly to the Friday afternoon clinic at the hospital or called to request an appointment. Others were assigned to the Young Mothers Clinic by the obstetric clinic's secretary after they called for information or came in to seek prenatal care. Still others were sent to the Young Mothers Clinic by their school or by the special educational program for pregnant girls at the Polly T. McCabe Center.[2]

At registration the total YMP regime was outlined, generally by a social worker, and each pregnant girl was asked if she wished to participate. Almost all did. In fact, during the 22 months of intake into the research sample, 90% of pregnant teenagers served by the Yale-New Haven Hospital obstetric clinics who met the criteria for the YMP study group were cared for by the Young Mothers Clinic.[3] Only twenty eligible girls (10%) chose the regular obstetric clinic over the Young Mothers Clinic or by mistake were not referred to it.

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[1] In this study all girls who registered for care in the Young Mothers Clinic of the Yale-New Haven Hospital were considered part of the YMP, regardless of whether they enrolled in the special educational program of the Polly T. McCabe Center. In New Haven the terminology frequently was reversed: i.e. all those enrolled at McCabe were considered in the YMP group regardless of whether they received medical care at the Young Mothers Clinic.

[2] The Center was named for Mrs. Polly T. McCabe, a native of New Haven who dedicated her life to serving young women. Among her many accomplishments was the formation of the first Girl Scout troop for black girls in the New Haven area. She also worked with youth groups in area churches, helped many girls who were homeless or in trouble, and was a poet.

[3] These figures were determined from a check of all deliveries at Y-NHH during the intake period and for six months after termination of intake.

Obstetric care: In the first two years of the YMP before the beginning of the study, the program had been small enough to allow one resident to provide almost all antepartum and postpartum care and perform almost all the deliveries—but it had required a large investment of his energy (Sarrel and Davis, 1966; Sarrel, 1967; Sarrel and Klerman, 1969). When he left, the hospital's obstetric department faced the problem of how to maintain continuity of care when no single individual was willing to devote so much attention to this group. Continuity was considered a crucial part of the program since it was a method whereby the personnel hoped to establish rapport with their youthful patients and gain the confidence and cooperation that might lead to improvement in the outcomes of their pregnancies. To be avoided was the impersonality of the usual obstetric clinic where, even in a teaching hospital, sensitivity to the feelings and concerns of the patient was low on the list of professional priorities, and a pregnant woman might be examined by three or four physicians during the antepartum period and be delivered by one she had never seen before. A compromise was devised by the obstetric service, which divided responsibility for the medical care of the patient between a member of the hospital's obstetric staff and the senior obstetric resident.

The patient's first clinic appointment, with its history-taking and complete physical examination, was the duty of the staff obstetrician, usually in cooperation with a nurse-midwife. Subsequent clinic visits were also handled by the obstetrician and the nurse-midwife until week 28 of gestation, when responsibility for the remainder of the antepartum care was transferred to the senior obstetric resident. The staff obstetrician and the resident shared the deliveries and the postpartum follow-up (Sarrel et al., 1968).

This plan lasted ten months; then the shortage of obstetric staff interested in devoting large amounts of time to school-age girls again almost compelled the conversion of the program to the usual obstetric clinic format with minimal continuity of care. A replacement physician was found in time, however, and, for the remainder of the research project, care was divided among a member of the obstetric staff, the obstetric residents in the usual rotation pattern, and a group of three nurse-midwives: the Young Mothers Clinic registrants were assigned randomly either to an obstetric resident or a nurse-midwife; whoever was available received the next patient to be seen. Patients assigned to a resident were seen by him for the initial antepartum visit and all subsequent visits up to week 28 of gestation. At that point the patient became the responsibility of the obstetric staff member assigned to the program, who followed her through the remainder of her antepartum course, labor and delivery, and postpartum care.

Patients assigned to a nurse-midwife were seen at the first visit jointly by the staff obstetrician and one of the three nurse-midwives. The patient was then assigned for the rest of her obstetric care to one nurse-midwife, usually the one she had first seen. She saw the girl for all her antepartum clinic visits, reporting deviations from normal progress to the staff obstetrician, who might then choose to examine the patient. Although the obstetrician might maintain close supervision if a major problem developed, the nurse-midwife remained in charge of the patient. The other two nurse-midwives also became familiar with the patient during the antepartum period, because responsibility for labor and delivery was given to the nurse-midwife on call, who might or might not be the one who had provided antepartum care. Only when medical circumstances warranted an operative intervention was the actual delivery performed by an obstetrician, and even then the nurse-midwife always assisted.

Social services: During the research period the changes in the personnel and procedures of the social work component were less radical than those experienced in the obstetric service. Two new master's level social workers were hired by the hospital to work in the Young Mothers Clinic before the research effort began in September 1967. One of these stayed with the program until just prior to the study sample cutoff date of June 30, 1969. The other stayed ten months and was replaced by a third social worker who remained until the study period was completed. The clinic social workers were supervised by an experienced social worker from the hospital's Social Service Department.

The pattern the social workers evolved in the early years of the project was to introduce themselves to the patient at her first antepartum clinic visit. During the first interview at the hospital, the social worker assessed each client's life situation to determine whether the patient had any particular problems which required help and which family members to include in the casework. She then provided assistance, either directly or through referral to other agencies. The social workers often encountered some resistance from family members and several interviews with the client might be necessary before the family was willing to participate. Unless the patient had a problem that required individual casework, additional contacts with the social worker were usually on an informal basis during a clinic visit, in the school setting, or during a group session. After delivery the social workers visited their patients while they were in the hospital to talk with them about their experiences with the delivery, probe for issues of concern, and determine whether adequate preparations had been made for the baby.

The social work staff felt that a visit to the patient's home gave an added dimension to the relationship. Not only could it provide insights into the girl's environment, but it also might demonstrate to the pregnant girl and her family the depth of the hospital's concern with her well-being. Initially the staff planned to visit all of the girls' homes during their pregnancies; however, the rapid increase in caseloads soon made this impossible. Part way through research intake, therefore, the social work staff decided to visit a home only when there seemed to be a special need for this service, for example, when a family had not accepted the patient's pregnancy. The family almost never refused to allow a home visit.

Many of the young clients fell into the group normally considered hard to reach by traditional social services because of age, race, deprived background, previous experience with the establishment, and similar factors. Group sessions were started as a method of overcoming the patient's resistance and thus opening the way to assistance from social workers and other personnel. These sessions, however, were not developed on a group psychotherapy model, since it was thought unlikely that the patients would participate in such activity. Instead, they were structured as task-oriented, time-limited educational sessions based on the needs of patients within the group. Some of the sessions dealt with the experiences of pregnancy, childbirth, child-rearing, family planning, and relationships with boyfriends. The skilled guidance of the social workers was relied upon to explore psychological and emotional problems when appropriate and thus to give the patients insights into their past and present behavior. A girl usually entered a group soon after she enrolled in the program, about the fifth or sixth month of pregnancy, and met weekly thereafter with other members and the social worker as leader. The obstetricians, nurse-midwives, pediatricians, public health nurses, and McCabe Center staff participated in these sessions. Also, each group of mothers-to-be was taken on a tour of the hospital's delivery floor and postpartum suite by the delivery-floor nurse.

Originally the group sessions were held at the hospital, but during the research period they were moved to the McCabe Center in an attempt to improve attendance and to increase opportunities for informal contact between the social workers and the girls. An additional reason for moving the groups to the Center was to encourage the formation of a team approach to the girls' problems. During the early years of the program the clinic and the McCabe staffs had difficulty in coordinating their activities. The late 1960s was a time of social and racial unrest to which the clients, service personnel, and research staff were not immune. Specifically, there were problems in coordinating the goals and role of the hospital-based, academically trained social workers with the school-based, community-oriented outreach and counseling personnel. In the beginning the task of joint planning and role definition was attempted through frequent (almost weekly) joint staff meetings, but these were only partly successful. The desired degree of coordination, cooperation, and understanding of the others' unique contributions was achieved only when the hospital-based social workers shifted their primary locus of activity to the McCabe Center, which permitted informal communication and cooperation between the social workers and the McCabe staff and students. Further discussion of the functions of the McCabe staff and the coordination with the hospital social workers is found in Appendix C.

During the first six months postpartum, the social work staff attempted to hold periodic group meetings with the young mothers and their infants. The "Baby Club" provided the mothers with the opportunity to share their mothering experiences with girls they had known at the McCabe Center and to discuss their questions and concerns (Bracken, 1971), but shortage of time and transportation difficulties limited the club's attendance and effectiveness. In addition, the social workers tried to be available for individual counseling when needed during the follow-up period. Here also the pressure of a heavy caseload made systematic follow-up by the staff difficult, and only those girls who took the initiative to telephone were likely to maintain contact with their social workers. It is interesting that many girls who in the postpartum interviews expressed a desire to see their social worker again felt that the social worker had terminated the relationship by not seeking them out.

Psychiatry: A psychiatrist was assigned to the program by the hospital's psychiatric department. She served primarily as a consultant, helping social workers and other staff gain insight into the problems of the patients and suggesting therapeutic interventions. When the clinical picture suggested frank psychopathology, or when the social worker appeared reluctant to handle the problem, the psychiatrist would see the patient. If therapy was indicated, she preferred to refer the girl to other resources because of time limitations, but on occasion she undertook to provide the psychotherapy (Balsam and Lidz, 1969; Lewis et al., 1973).

Education: All the Young Mothers Clinic registrants were urged to enroll in the educational program at the McCabe Center. The Center had opened in November 1966 in the parish house of St. Luke's Church in New Haven, which bordered an area in which many of the students lived. Emerging community interest in the problems of teenage unmarried mothers, the stimulation of the expanding Yale-New Haven Hospital program, and four years of behind-the-scenes work by concerned persons brought about concerted community action resulting in the establishment of the Center as a school for pregnant students and a facility for recreational and other services.

The McCabe Center provided a focus for the integration of many community activities directed at the problems of pregnant teenagers. Its overall direction was under the leadership of a woman with extensive background in New Haven's poverty program. During the study period Community Progress, Inc., New Haven's OEO-funded program, demonstrated its concern with the problem by supporting the Center's director. She was responsible for the overall administration of the Center and assisted with nonacademic problems such as welfare, family difficulties, and school absence.[4] Midway through the research observation period she was provided with an assistant because of the steady increase in the number of girls participating in Center activities.

The special educational program of the McCabe Center was operated by the New Haven Board of Education, and the Center followed the regular school calendar and used the same texts. Throughout the research period, classes were held five days a week from 9:00 a.m. to 12:00 noon. Students from grades 7 through 12 were accepted. The academic staff included one full-time head teacher and several part-time teachers, depending on the needs at a given time. The head teacher maintained direct communication with the school from which the student came, to keep informed about the academic programs the pupil was following, so that the student could be readmitted to her former classes after her delivery. Just as there were some problems initially in coordinating the work of the clinic and the nonacademic McCabe staff, there were problems defining to what extent the work of these staff members should be coordinated with the work of the teachers.

The Visiting Nurse Association of New Haven provided a part-time public health nurse to the McCabe Center. Originally the nurse attended the Center two mornings a week, but this was gradually increased to five mornings a week by the end of the research period because of the need for her services. The nurse had several duties; she saw any girl with medical problems or questions, and she conducted educational sessions for small groups on subjects relating to the health of mothers and infants. Sometimes her educational efforts were within the context of the social-work group sessions, particularly after the social workers shifted their locus to the McCabe Center. Often, however, her educational efforts were independent of the sessions and to some extent tended to reach those girls who did not attend the group meetings.

An additional basic function of the nurse was to visit the homes. Since each New Haven visiting nurse had a territory to cover, the nurse assigned to McCabe visited only the girls who lived in her territory. She did coordinate, however, the home visits for all the students at the Center by contacting the appropriate visiting nurses. At least one antepartum home visit was made by the nurse in the girl's area, and each girl was seen as soon as possible after coming home with the new baby, usually within 24 hours. About two weeks after the girl came home the nurse made another visit to help the new mother make arrangements for well-child care.

The Inter-Agency Services Program. The other program to receive major attention in this study was the Inter-Agency Services (IAS) program in Hartford. This program was designed to offer coordinated educational, health, and social services to pregnant girls. Its staff tried to assist the client in evaluating the choices available, making sound decisions, furthering her continued growth through education and activities leading to enhanced self-esteem, and planning appropriately for herself and her child.

From its beginning in 1961 as a demonstration project of Hartford's Neighborhood Centers, IAS had grown by involving additional agencies, including the Greater Hartford Community Council. In January

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[4] See Appendix C for further discussion of the roles of the community workers based in the McCabe Center.

1965 the program was funded under Hartford's poverty program for administration by Children's Services of Connecticut, with the Hartford Board of Education, Hartford Visiting Nurse Association, and Hartford Neighborhood Centers as participating agencies. After a period of experimentation, the program opened in the fall of 1967 at a local church, the Unitarian Meeting House, which was out of the poverty area but accessible by free bus. At the same time, in order to retain its ties with the overall poverty effort, Inter-Agency Services kept its administrative office in the Community Renewal Team's Multi-Service Center.[5] In 1968, however, the IAS staff program moved to the Center Church in downtown Hartford, but its administration remained in the Multi-Service Center.

Discussions among the participating agencies led to agreement on goals, financial responsibilities, and structure, greatly facilitating efforts to work constructively with the girls. Symbolic of this agreement was the addition to the staff of a full-time nurse from the Hartford Visiting Nurse Association. When the study began, the IAS staff consisted of a full-time director, two bachelor's-level caseworkers, a nurse, a supervising teacher, and a staff of part-time teachers. Group counseling was initiated in the health area. By the end of the study period the social work staff had increased to three full-time and one half-time bachelor's-level workers plus the supervisor.

Eligibility: During the study years, IAS offered its services to any pregnant girl who was enrolled in grades 9–12 of a Hartford public school, regardless of financial or marital status. Referrals to the IAS were accepted from any source, although the Board of Education usually was involved before the girl entered the school program. Interested pregnant girls still in the Hartford schools were asked to call the program to initiate contact, but a worker would assist with girls who found it difficult to make a decision about continuing school. The only girls refused were those who spoke only Spanish and those in "Opportunity Rooms,"[6] who were referred to home instruction.

Casework: The Inter-Agency Services program consistently emphasized individual casework and set a maximum caseload of twenty clients for each full-time worker, including the nurse. Of necessity, as the number of IAS registrants steadily increased, this guideline was exceeded, and the frequency, intensity, and length of casework services decreased.

The casework staff assumed responsibility for helping each girl with medical care, financial planning, educational goals, employment, housing, and similar matters. Interviews frequently occurred spontaneously and informally in the school setting or through home visits by the social worker, although office visits also were scheduled. The caseworkers tried to strengthen the girl's sense of responsibility and participation, but the burden of provision of service was on the worker.

Efforts were made to reach the parents or guardians of the girls but were limited by caseload and staff-development considerations and by diagnostic decisions. Putative fathers were involved when feasible and appropriate. Clients were frequently referred to other agencies for such services as medical care, financial assistance, placement, adoption or foster care, psychiatric care, planned parenthood, and employment.

Education: Classes were offered from 9:00 a.m. to 2:00 p.m., five days a week. Return to regular high school after delivery was timed to the girls' needs; some returned at the beginning of the first new marking period following delivery, and others finished the semester or the year at the special school. An attempt was made to continue the casework relationship after the girl returned to regular school for as long as she was deemed in need of services and would accept them, and to continue casework services even if a girl dropped out of the school program.

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[5] The Community Renewal Team was Hartford's OEO-sponsored antipoverty agency.

[6] Opportunity Rooms in the Hartford school system were designed for students with known learning disabilities. The IAS program had no Spanish-speaking staff.

Obstetric care: Care in Hartford was provided by the obstetric clinics of the three major hospitals and, in some cases, by private physicians. The three hospital clinics were partly supported through a Maternity and Infant Care Project (MIC) grant from the United States Maternal and Child Health Service to the Hartford Health Department. The grant enabled the clinics to employ additional service persons in some categories such as nursing, social work, and clerical assistance, and to employ persons in such new categories as nutritionist and Spanish-language interpreter. Each hospital tried to develop some special program for teenage pregnant girls; two saw only teenagers on certain days, and the third started an educational program from which IAS participants were excluded. The clinics were usually held either just before or just after lunch, so that the girls frequently had to miss school to attend the clinic.

Continuity of care was emphasized in only one of the three clinics, where the same staff obstetrician saw all the girls for prenatal care, but not for delivery. In the other hospitals, both prenatal care and deliveries were the responsibility of residents on a rotation basis. Psychiatric service was available on request only, despite the encouragement of the MIC staff to incorporate these services into the regular obstetric program.

The MIC grant enabled the hospital clinics to provide social service. Hospital social workers, however, usually delegated major casework responsibility for IAS students to the IAS social workers. They kept close surveillance over the girls in the clinic, and discussed problems with the IAS workers. Usually the young mother was assigned a new social worker when she brought her baby to the hospital for well-baby and pediatric care.

The Comparison Program. In order to provide a baseline against which to compare the outcomes of the two special services programs, the research group decided to study a third population which had not had the advantages of a special program. What was needed was a similar group of pregnant girls who had been exposed only to whatever services were traditionally available. The pregnant school-age girls selected as the Comparison group had registered for obstetric care at the Yale-New Haven Hospital from October 1, 1963, through March 31, 1965, prior to the inception of the YMP.[7]

Eligibility: All pregnant women were eligible for care at the Y-NHH obstetric clinics, regardless of age, marital status, and residence. However, all members of the Comparison group used in this study met the same intake criteria as the YMP study group.

Obstetric care: Care in the obstetric clinics was provided largely by residents, under the supervision of staff members. Though it was of high technical quality, continuity of care was not attempted. Schlesinger et al. (1962) reported that 27 of 30 patients interviewed in the Y-NHH obstetric clinic had been examined by three or more clinic physicians. The physicians paid little attention to the provision of adequate emotional support or to the education of the patient. The clinic nurses were more aware of these problems and attempted to meet the patients' needs in these areas, within their busy schedules. The patient was delivered by whichever resident was on call at the hospital when she arrived.

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[7] The problem of selecting an adequate Comparison or control group is discussed more fully in chapter 3.

Social services: The hospital had an active social service department that sought to provide assistance to both outpatients and inpatients who could benefit from its services. No single social worker was assigned to the obstetric service, but requests for social worker assistance from clinic physicians or nurses were filled by one or another of the workers. A special attempt was made to interview all very young mothers and all unwed mothers pregnant for the first time, but this was not always possible. Continued social worker–patient contact was unlikely because of the large caseload. Patients requiring intensive care were referred to community agencies such as Family Service or Catholic Charities, especially if adoption was being considered.

Psychiatry: Psychiatric consultation was available on request from the hospital's psychiatry service, but such assistance seldom was sought.

Education: No law in Connecticut or New Haven prohibited a pregnant schoolgirl from continuing to attend school, but the Board of Education generally applied the same regulation to pregnant students as to pregnant teachers, i.e. that they should leave after the fourth month of pregnancy. This was not rigidly enforced, partly because it was not necessary (the girls usually dropped out on their own when they discovered they were pregnant) and partly because the school personnel did not always know a girl was pregnant. Occasionally a girl stayed in school for essentially her entire pregnancy.[8] If a pregnant girl and the school requested it, and a physician signed the necessary forms, home instruction was made available for a few hours a week (Holmes et al., 1970). A minimal effort was made to have the young mother return to school after delivery.

Community nursing services were available at home to the Comparison group upon request. The characteristics of the three programs are summarized and contrasted in Table 2-1.

The Pregnant School-Age Girls

What were the characteristics of the girls who entered the two special services programs and who registered for the obstetric clinic? In general, they could be characterized as young, black, and poor. More specific details about their backgrounds will be found in the following paragraphs. Since not all girls who participated in the two special programs and in the obstetric clinic met the criteria for inclusion in the study sample,[9] the two groups (the total participants and the study sample), while similar, are not identical. The special programs enrolled some girls who were 18 and older, who were married, and (in the medical services) who lived outside the central city. Such girls were not included in any of the research samples described below. The YMP study sample totaled 180; the IAS, 160; and the Comparison group, 83. The following data are based on characteristics at time of registration, unless otherwise specified.

Age. The mean age of the YMP study sample was 15.6 years, of the IAS group 15.9 years, and of the Comparison group 16.1 years (Table 2-2). The YMP group is the youngest because of the absence of minimum age for eligibility at the Young Mothers Clinic, whereas the IAS accepted only those eligible for grade 9 or higher. The difference between the YMP and the Comparison group probably was due to the steady increase in the proportion of very young girls delivering in New Haven between 1963 and 1967, when the Comparison and YMP intakes were begun (Table 2-3).

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[8] Personal communication, Dr. Achille Riello, Director, Department of Pupil Personnel, New Haven Board of Education.

[9] At registration: under 18, unwed, resident of New Haven or Hartford, and delivered after week 20 of gestation.

Race and Religion. The YMP group included eleven nonblacks of whom five were Puerto Rican, the IAS group included eight nonblacks of whom three were Puerto Rican; and the Comparison group included nine nonblacks of whom three were Puerto Rican and one was designated mulatto. Most of the black girls were Protestant and most of the white girls Catholic.

Birthplace. Approximately 40% of the YMP, IAS, and Comparison groups were born in the city in which they resided at registration. An almost equal proportion of the YMP and IAS groups and more than half the Comparison group were born in one of the southern states. Most, however, were not recent immigrants. Over a third of the YMP group had lived in New Haven all their lives and only a fifth had lived there less than five years. Thirty-seven percent of the Comparison group were born in New Haven and only 20% came there after age 12.

Households. The girls generally came from large households, 42% of the YMP households included seven or more persons, as did 36% of the IAS group; 29% of the Comparison group's households included seven or more persons at the time they delivered. Half of the households were headed by a mother alone (53% of the YMP and 47% of the IAS); 33% of the Comparison group households were headed by the mother at the time of delivery of the index child. Both parents were present in 32% of the YMP group, 37% of the IAS group, and 45% of the Comparison group households.

Previous Pregnancies. Despite their youth, twelve (6.7%) of the YMP participants had given birth at least once previously; two of them had been pregnant twice; fourteen (8.7%) of the IAS and nine (10.8%) of the somewhat older Comparison group also had experienced previous pregnancies. These data are presented in Table 2-2.

Ordinal Position. Forty-two (23.6%) of the YMP participants were the only or oldest child in their families. The comparable figure for the IAS group was 49 (32.0%).[10]

Socioeconomic Status. Welfare status provided the best approximation of economic level;[11] 80% of the YMP, 71% of the IAS and (after delivery) 72% of the Comparison group were receiving some type of welfare assistance. According to criteria established in a special 1967 New Haven census,[12] 7% of the YMP group resided in the highest two socioeconomic quartiles, 29% in the third, and 64% in the lowest (U.S. Bureau of the Census, 1971).

School Status. Because of eligibility requirements, all the IAS girls were in school when they registered for the program. By contrast, 17% of the 180 YMP girls and 32% of the 71 girls in the Comparison group (for whom there were data) had dropped out of school before they registered for clinic care. The last grade attended also reflected the differences in eligibility criteria between the special programs: 17% of the YMP had not yet reached grade 9, but all the IAS were in grade 9 or higher. All but 8% of the Comparison group had completed grade 8. The highest proportions of girls were in grades 9 and 10 in the YMP and in grades 10 and 11 in the IAS and Comparison groups. The smaller numbers in grade 12 may reflect the fact that many pregnant 12th-graders were 18 years old, and therefore ineligible for the research samples, or that a higher proportion had left school by that time.

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[10] Based on 178 for YMP and 153 for IAS. Data not available for the remainder or for the Comparison group.

[11] Neither economic status nor social class was measured directly, for reasons explained in chapter 3.

[12] See chapter 3 for further information about these criteria.

Educational Goals. Soon after registration in the YMP and IAS study groups, the girls were asked what their educational goals were at that time. The large majority in both groups intended to finish high school but go no farther. A significant number, however, wanted to continue either to college or to some kind of vocational training institution. Initially the research staff questioned whether the girls would give (or even knew) their intentions so early, but the strong associations between their stated educational goals and subsequent achievement are convincing evidence of the validity of this variable (see chapter 7).

When the comparison between the two special program groups is limited to those who registered for the special school, were in grade 9 or above, and were black, the differences between them are diminished.[13] (Table 2-4).

Appropriateness of Grade. Whether or not a girl was in the grade appropriate to her age was hypothesized to be a predictor of educational achievement. The primary method of calculating the age-to-grade relationship was that used by the census (U.S. Bureau of the Census, 1960), although an exact age method also was devised and used (Foltz et al., 1972). More of the YMP than the IAS participants were behind grade level by both methods (Table 2-5). The differences were minimized and, in the case of the census method, almost entirely eliminated by the matching procedure described above.

Case Studies

Statistics have value, but they do not communicate the human dimension of the young mothers, their participation in the program, or their eventual life styles. In an attempt to humanize the statistics, four of the young mothers (here called Alice, Betty, Cathy, and Diane) will be described as they entered the YMP. In later chapters their participation in the program will be discussed. These case histories have been altered somewhat to conceal the girls' identities. The girls were selected randomly from four groups of mothers with different life styles at 26 months postpartum.

Alice. Alice was in week 15 of her first pregnancy when she registered in the Young Mothers Clinic. Born in the South, she had been a resident of New Haven for most of her life. She was in the tenth grade. Her household included her mother and four younger siblings, and they were on welfare. The putative father was three years older than Alice and was employed. Alice wished to graduate from high school and attend a vocational school.

Betty. Betty was in week 28 of her first pregnancy when she registered in the Young Mothers Clinic. She had been raised by a relative, and they had moved to New Haven from the South shortly before she registered for care; they were both on welfare. Her mother and several siblings lived in another city. She became pregnant by a man four years her senior during a visit with her mother. She hoped to finish high school, and after that become a salesperson.

Cathy. Cathy was 22 weeks pregnant with her first child when she registered in the Young Mothers Clinic. She lived with both parents and an older sibling. The family had moved to New Haven from the South several years earlier, and they were not on welfare. The putative father was one year

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13. The rationale of the matching procedure is described in chapter 3.

older than Cathy; he was attending high school and working. Cathy was in the last year of high school and hoped to attend vocational school after graduation.

Diane.–Diane was in week 16 of her first pregnancy when she registered in the Young Mothers Clinic. She had been raised in the South and had moved to New Haven to live, a year before her registration. The household consisted of her mother and another relative, and they were on welfare. Her mother wanted her to place the baby for adoption because she had recently been quite ill and did not want the burden of a grandchild. Diane, however, wanted the baby and this led to hostility between mother and daughter. At several points in the hospital record, comments were made suggesting that Diane was slow or retarded. These were not documented by testing. The study interviewer felt that Diane appeared to be an intelligent person. The social worker judged her average in her probable adjustment to pregnancy and in her understanding of the responsibility of motherhood. The putative father was three years older than Diane and was employed.

The Service Personnel

In contrast to the young, black, and poor participants, most of the personnel who provided the services in the special programs were in their twenties and thirties, white, and middle class. More important than their socioeconomic characteristics, however, was their innovative approach. They were not "locked into" any system. Many of them were relatively new to their chosen field. For some it was their first or second professional employment. But all, even those few with many years of experience, had entered the area of service to school-age pregnant girls by choice and all realized they were breaking new ground and that new approaches in medical care, social services, and education were essential.

This was not true of the personnel who assisted the obstetric clinic patients in the 1963–65 period. With the exception of the obstetric residents, who were young and inexperienced, most of the medical, nursing, social service, and educational staffs were mature, experienced workers, and, more important, workers who had not specifically chosen to serve pregnant school-age girls. For many of them the girls were just one among many groups with equally serious problems who needed their assistance. And some of the staff may have had ambivalent feelings toward young girls pregnant out of wedlock.

Although the service personnel were described in some detail, it is clear that they were not studied as systematically as the programs and the clients. In retrospect, this is an important limitation of the study, although it is doubtful that instruments were (or are) available to detect the characteristics of service personnel that are most important to their effective functioning in such a setting. Nevertheless, if attitudinal ratings or personality inventories had been obtained from the service personnel, they could have been studied for association with their acceptance by their clients and with their clients' achievements.

Summary

The three study groups are very similar demographically and socially. This was by design. The study was planned to determine the effectiveness of programs, and if the study groups had been markedly dissimilar at the outset it would have been difficult to distinguish between outcomes resulting from those dissimilarities and the effects of the programs. For the full study groups, only welfare status at registration was significantly different. The YMP group had more girls with high and low educational goals, but there were no differences between the mean or median levels of goals. Welfare status at registration was still the only variable among those discussed in this chapter that remained significantly different between the YMP and IAS groups after they were matched on educational criteria and race.

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Table 2-1. Comparison of Services Provided by the Two Special Programs and by the Obstetric Clinic

	Young Mothers Program (YMP)	Inter-Agency Services Program (IAS)	Obstetric Clinic (Comparison Group)
Medical services	Special clinic for school-age mothers at Yale-New Haven Hospital. Continuity of care, emotional support, and education emphasized. Some cases cared for by nurse-midwives. Psychiatrist assigned to program.	No clinic attached to program; clients referred to hospital clinics with special services for teenage girls or to private physicians. Psychiatric consultation by request only. Girls often had to miss school to attend the clinics.	General clinic and medical-complications clinic. No separation by age. Psychiatric consultation by request only.
Educational services	Special educational program at Polly T. McCabe Center. Junior and senior high school grades. Special emphasis on following same program as referring school. Coordinated with clinic social services.	Special school, grades 9–12. Integrated with social services component. Emphasis similar to YMP.	Home instruction available if requested.
Social services	Casework orientation mixed with some group work. Hospital-based, but much work done at Center. All social workers with master's degrees.	Emphasis on informality and reaching out. School-based. Social workers without advanced degree supervised by one with master's degree.	Hospital social workers available on request, with some attempt to see certain categories of patients routinely.
Nursing services at school	Provided by Visiting Nurse Association of New Haven; input from hospital-based nurse-midwives in group sessions.	Provided by Visiting Nurse Association of Hartford. Full-time nurse available at special school.	Visiting Nurse Association services available at home on request.

Table 2-2. Selected Characteristics of the YMP, IAS, and Comparison Groups at Time of Registration

	YMP (N = 180)		IAS (N = 160)		Comparison (N = 83)	
	No.	%	No.	%	No.	%
Age at registration						
11–12	1	0.6	–	–	1	1.2
13	8	4.4	–	–	1	1.2
14	26	14.4	13	8.1	2	2.4
15	34	18.9	43	26.9	14	16.9
16	62	34.4	59	36.9	31	37.3
17	49	27.2	45	28.1	34	41.0
Race						
Black	169	93.9	152	95.0	74	89.2
White, not Puerto Rican	6	3.3	5	3.1	5	6.0
White, Puerto Rican	5	2.8	3	1.9	3	3.6
Mulatto	–	–	–	–	1	1.2
Birthplace						
New Haven	66	36.7	–	–	29	34.9
Hartford	1	0.6	59	41.8	–	–
Other Connecticut	6	3.3	5	3.5	2	2.4
Other New England	2	1.1	3	2.1	–	–
Middle Atlantic states	14	7.8	6	4.3	4	4.8
Southern states	86	47.8	57	40.4	45	54.2
Other continental U.S.	1	0.6	1	0.7	–	–
Puerto Rico	4	2.2	3	2.1	3	3.6
Outside U.S.	–	–	7	5.0	–	–
Unknown	–	–	(19)	–	–	–
Total number in household, including client						
1–3	33	18.5	30	18.9	59	71.1[a]
4–6	70	39.4	72	45.3		
7+	75	42.1	57	35.8	24	28.9
Unknown	(2)		(1)			
Type of household						
Mother only	94	52.2	75	46.9	27	32.5[a]
Both parents	57	31.7	58	36.3	37	44.6
Other and unknown	29	16.1	27	16.9	19	22.9
Previous pregnancies						
0	168	93.3	146	91.3	74	89.2
1	10	5.6	14	8.7	6	7.2
2	2	1.1	–	–	3	3.6

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[a] Comparable data at registration not available; data given are at delivery.

Table 2-3. Age at Delivery for Unwed Mothers under Age 18[a]

		Age at Delivery			
		12–15		16–17	
Year	N	No.	%	No.	%
1963	55	11	20.0	44	80.0
1964	66	10	15.2	56	84.8
1965	75	16	21.3	59	78.7
1966	91	20	22.0	71	78.0
1967	112	30	26.8	82	73.2
1968	133	42	31.6	91	68.4
1969	140	42	30.0	98	70.0

[a] Source: Vital Statistics of New Haven, Connecticut, 1963-1969.

Table 2-4. Educational Goals at Registration, YMP and IAS Total and "Matched" Groups

	Total Study Groups				"Matched" Study Groups			
	YMP		IAS		YMP		IAS	
Educational Goal	No.	%	No.	%	No.	%	No.	%
Finish high school and continue education	39	22.7	19	16.8	32	27.8	18	16.7
Finish high school only	111	64.5	92	81.4	78	67.8	88	81.5
Not complete high school	22	12.8	2	1.8	5	4.3	2	1.9
Total	172	100.0	113	100.0	115	100.0	108	100.0

Table 2-5. Appropriateness of Grade to Age by Two Methods, YMP and IAS Total and "Matched" Groups

	Total Study Groups				"Matched" Study Groups			
	YMP		IAS		YMP		IAS	
	No.	%	No.	%	No.	%	No.	%
Method 1 (census)								
At grade or above	148	82.2	142	89.3	104	87.4	135	89.4
Below grade	32	17.8	17	10.7	15	12.6	16	[illegible]
Total	180	100.0	160	100.0	119	100.0	151	100.[illegible]
Method 2 (exact age)								
At grade or above	112	62.2	115	71.9	78	65.5	111	73.0
Below grade	68	37.8	45	28.1	41	34.5	41	27.0
Total	180	100.0	160	100.0	119	100.0	152	100.0

3 Development of the Study

The research* was conceived originally to answer two related questions: To what extent did the Young Mothers Program enable the girls it served to achieve the program's goals for them; and did the YMP accomplish more than traditional services for young mothers-to-be?

To answer the first question, a clear picture of the purpose of the program was needed, preferably stated in such a way that its achievement could be measured. Examples of measurable objectives were graduation from high school and delay of subsequent pregnancies. Such concepts as self-realization and increased maturity could not be measured adequately by current survey methodology.

No statement of the specific goals of the program existed when the research team began its explorations. There was enthusiasm about high-quality medical care, healthy infants, high school graduation, college acceptance, and employment; there was also discouragement about rapid subsequent pregnancies. It became the task of the research team, in cooperation with the clinical team, to translate these feelings into program goals.

To answer the second question, the investigation had to distinguish between effects resulting from the programs and those resulting from random changes, trends over time, and extraneous factors. The most satisfactory research design would have been a randomized split sample, with study subjects who met the intake criteria being assigned randomly either to the experimental group (which was given the special services) or to a control group (which was given traditional services) (Campbell, 1969). Such a design would eliminate time trends, and would limit the initial differences between the two groups to those due to random variation, which could be estimated by statistical methods. This procedure, however, was ethically unacceptable to both the clinic and research staffs since it would have meant denying the special services of the program to half the girls eligible for them. A quasi-experimental method was devised as an alternative. Because of their potential impact on the study results, the problems of selecting the study groups and specifying goals will be considered in greater detail.

Selection of Study Groups

Young Mothers Program. New Haven's Young Mothers Program was always the primary focus of the research, not only because the research group itself was based in New Haven, but also because the YMP was one of the earliest programs for school-age mothers. For this group, therefore, the only selection questions were who precisely was to be included, and over what period of time was intake to be conducted. The decision was made to have intake into the YMP group through registration in the Young Mothers Clinic at the Yale-New Haven Hospital rather than through the special educational program. This was done because the research team was particularly interested in the influence of the hospital phase of the program, and not all the students in the special educational program received their medical care at Y-NHH. Also, in order to keep this study group as homogeneous as possible and thus reduce the impact of extraneous variables, all girls were excluded who, at the time of registration, were married, 18 years of age or over, or not residents of New Haven. The hospital routinely sent older pregnant women to the general obstetric clinic rather than to the Young Mothers Clinic, but the latter accepted married girls and those from outside New Haven. The research project, however, was precise and rigid in regard to marital status, age, and residence.

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* The co-authorship in chapter 3 of Ira W. Gabrielson, M.D., Medical College of Pennsylvania, is gratefully acknowledged.

Aside from these stipulations, the research staff was flexible about who should be considered a YMP participant. All that was required was registration in the Young Mothers Clinic and appearance for at least one antepartum appointment. This made for wide divergences in the number of obstetric clinic sessions attended, contacts with social worker, and school attendance. Finally a requirement was added that the delivery be at the Y-NHH after twenty weeks gestation, since girls with miscarriages[1] had limited exposure to the program and to the problems posed by a pregnancy and, therefore, were not suitable subjects upon which to base a meaningful program evaluation.

The intake period originally was set from September 1, 1967, to August 31, 1969. The initial date coincided with the beginning of the new phase in the history of the program described in the previous chapter. The obstetrician and two social workers who had been devoting full time to the program had left, and new personnel had begun work during the summer of 1967. Autumn, therefore, seemed the appropriate time to start intake in order to avoid variations due to two sets of personnel. Intake was set at two years, since a study group of approximately 200 was desired and usually two new patients were admitted at each weekly clinic session. Impending significant personnel changes in the summer of 1969 forced a two-month foreshortening of the intake period (September 1, 1967, to June 30, 1969), and resulted in a study group of 180 young mothers.

Search for a Comparison Group. In order to determine the influence of the YMP on the life history of the pregnant girls, another study group was essential. Since the split-sample procedure outlined earlier had been ruled out, other alternatives were considered. One possibility was to compare participants in the YMP with contemporaneous nonparticipants at the same hospital. This was discarded almost immediately, partly because of the probability that self-selection would introduce bias—i.e. the more motivated patients would participate in the YMP and the less motivated be left for the control group—and partly because of the small number of nonparticipants.

A second possibility was to reach into past records, before the advent of the YMP, for a control sample which had not received the special services described earlier. This approach, however, might introduce untestable factors such as changes over time in the population served, medical practices, educational standards, and community attitudes.

A third approach was to compare simultaneously the medical, educational, and other achievements of girls participating in the YMP with those of similar patients elsewhere who were not receiving special services. The third alternative was chosen initially. The entire study was to remain prospective in character and a "comparison" group was to be sought whose intake would cover the same period of time as the experimental group.[2]

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[1] The technical definition of miscarriage—loss of a fetus through week 20 of gestation—is used here; loss of a fetus after week 20 is termed stillbirth.

The comparison group was to have demographic and socioeconomic characteristics similar to the YMP participants; to be approximately the same size as the YMP; to be easily accessible from New Haven; not to be participants in any augmented medical, social, or educational services but to be receiving a level of medical care equivalent to that received in New Haven prior to the inception of the YMP. The use of teenage obstetric patients at the other hospital in New Haven was considered but rejected because of the small numbers, differing demographic characteristics, evidence that the hospital might soon establish a program similar to the YMP, and the availability of the special educational services to patients at both hospitals.

Clinics that served teenage obstetric patients in neighboring cities were considered but not approached because of the possibility that special programs would be developed there while the study was under way. At this time the Connecticut State Department of Health was promoting comprehensive programs, and most Connecticut cities of any size, in fact, did organize special programs during the study period. This process eliminated the possibility of obtaining an adequate control group in nearby Connecticut communities.

Inter-Agency Services Program. Finally the search for a comparison group receiving no special services was abandoned. Instead, a population participating in a special program with a different orientation was chosen —the Inter-Agency Services program in Hartford, described in the previous chapter.

The decision to use IAS as a "contrast" group[3] created a research design that would attempt to measure not the difference between the presence and absence of a program but the difference between two types of programs whose objectives were basically the same but whose approaches were different. Although this was not an ideal design, the research staff believed that differences in outcomes would be observable and measurable. They thought that the YMP, with its emphasis on personalized medical care integrated with social service and its close working relationship with an educational program, would be more likely to reach its objectives than IAS, which had integrated its social services and educational program but did not offer a coordinated special medical program.

By the end of the second research year, doubts were expressed about the utility of the IAS population as a contrast group. With increased contact, the research staff had developed a more positive opinion of the Hartford program. Also, early data aroused suspicion that because intake was through a school program, IAS was reaching a more selected group of pregnant girls than the mixed group enrolled in the YMP where intake was through a hospital clinic. With this information, the alternative possibilities for a comparison group were reconsidered.

The Comparison Group. Despite the problems involved in a retrospective design, the decision was made to supplement the basic YMP–IAS contrast with a study of a group of girls who had received care at the Y-NHH obstetric clinics before the inception of the YMP. Thus the medical, educational, and social outcomes of the YMP group could be compared with those in another group that was demographically and economically similar. This group, now called the Comparison group, should have received approximately the same quality of basic medical care but would have been offered no special services. (The services available to this obstetric clinic group were described in the previous chapter.) Other advantages included the comparability and availability of medical records.

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[2] Since the comparison group in this quasi-experimental design did not meet all the criteria for a control group, it will not be called a control group. Its purpose, however, was the same.

[3] The term contrast group will be used to indicate a group receiving special services with a different emphasis.

The Comparison group was chosen from patients who attended the Y-NHH regular obstetric clinics during the eighteen months before the initiation of special care to teenage patients by the original obstetric resident. The Comparison sample registered for care between October 1, 1963, and March 31, 1965. Only those patients who met the same criteria as the YMP and IAS samples were chosen: age 17 or under, unmarried, resident of New Haven at clinic registration, and terminated the pregnancy at the Y-NHH after having been pregnant at least twenty weeks.

The selection of this Comparison group made possible two basic types of analysis. Both the YMP and IAS special program groups could be compared with this group to determine if special services made a difference. Also, the YMP and IAS could be compared directly to see if one style of special program had advantages over the other.

Specification of Goals

The task of setting program goals technically belonged to the YMP and IAS service personnel rather than to the research staff. The clinicians, however, even though they felt deeply what they wanted to accomplish, often were unable to express these feelings as operational aims. The researchers found it was their task to translate the clinicians' discussions of goals into objective terms. Sometimes their interpretations were accepted, but often the research staff was told that its thinking was too limited, or even wrong. For example, the clinicians' disappointment when a subsequent pregnancy in a YMP participant was mentioned suggested to the research team that the prevention of subsequent pregnancies might be a program goal. The clinicians qualified this, reminding the researchers that their patients had as much right as other women to become pregnant, especially once they were married.

Eventually the research staff defined the scope of the research by establishing a series of short- and long-range criteria for determining program success. Little disagreement ensued from the short-range goals: a healthy pregnancy, an uncomplicated delivery, a healthy infant, and return to school postpartum. The long-range criteria, i.e. "success" at two years postpartum, when the study was to conclude, brought the researchers into more sensitive areas. The following were accepted: completion of high school or its equivalent,[4] deferment of subsequent pregnancy, evidence of employability, and progress toward economic independence. Many of the clinicians, and even some members of the research staff, felt that some of these criteria were culture-bound and represented an attempt to impose middle-class values on the study populations. Many discussions were held about whether a high school diploma really signified educational achievement or merely symbolized the ability to stay in school until graduation; about the stability of teenage marriages; and about the possible negative impact of employment upon the care given the child. Undoubtedly these issues can be viewed in many ways, but these criteria appeared important to those who funded the programs, and the use of them enabled the research staff to have meaningful communication with others interested in programs for pregnant girls.

Equally important was the elimination of those criteria which, although they might be acceptable as goals, were not realistic in terms of the service program. For example, indicators of the infant's physical and emotional health after the neonatal period were deleted as outcome measures because the long-term services offered to infants were considered insufficient to produce results detectable by survey research techniques within the two-year postpartum period.[5]

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[4] Some of the very young girls would not be able to finish high school by the end of the study. In these cases, high school attendance at two years postpartum was considered a success.

Original Hypotheses. To give the research project additional focus, a series of hypotheses was developed. The first set, submitted to the Children's Bureau in 1967, was largely concerned with the health of the mother and the infant and with short-range educational and social achievement. As the project developed, there was increasing concern with the program's long-range impact in terms of education, future childbearing, and economic independence; the hypotheses were revised accordingly.

Revised Hypotheses. Revisions[6] developed in early 1969 accepted the possibility that certain types of programs might achieve greater success on some indicators, whereas other types might show greater achievement on other indicators. They also distinguished between short- and long-term results.

1. Teenage unwed mothers who actively participate in a hospital-based program (YMP) will fare significantly better than similar mothers receiving care through traditional service patterns (obstetric clinics) in terms of *health during pregnancy, ease of labor and delivery*, and *health of infant at birth*. Mothers in a social agency-based program (IAS) will fall somewhere between these two populations in the same areas.

2. Teenage unwed mothers who actively participate in either a hospital- or social agency-based program will fare significantly better than similar mothers receiving care through traditional service patterns in terms of *short-range educational and social goals*, such as continuation of school through pregnancy and delay in becoming pregnant again. There will be little difference between the hospital- and the social agency-based programs in these respects.

3. The achievement of *long-range educational and social goals* will depend upon the length of time during which the program continues to provide support. For example, graduation from high school and delay of second pregnancy until school completion and marriage will be more prevalent in the patient-clients of the program that maintains long-term contact with them, probably the social agency-based program, in comparison to the program that terminates contact in a shorter time, probably the hospital-based program. These goals will be realized in only a small percentage of those mothers who receive care through traditional service patterns.

4. The achievement of *long-range educational and social goals* will depend, in addition, upon the degree of patient participation in the program, measured both qualitatively and quantitatively. Thus the completion of high school and delay of second pregnancy also will be more likely in the patient-clients who have taken full advantage of the program's services, as compared to those who entered the program late or participated in a limited way.

5. The ability of the teenage unwed mothers to respond positively to the hospital- and social agency-based programs will vary with the preexisting characteristics of the patient-clients. For example, those in the younger age group, 12–15, will differ from older ones, 16 and 17, in patterns of program participation and achievement of the short- and long-range goals.

Categories of Variables

Several hundred items of information were collected on each member of each study group. These varied from age at registration to mother's perception at 24 months postpartum of her most serious problem. For purposes of hypotheses testing and other forms of data analysis, these variables were divided into several categories.

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[5] For a more detailed description of the problems of goal specification, see Klerman et al., in press.

[6] The revised hypotheses are worded exactly as submitted in 1969, so they reflect the thinking of the research staff at that time. As data in subsequent chapters will make evident, the staff had somewhat limited vision and, perhaps, a few prejudices.

Outcome (Dependent) Variables. Of central importance were the outcome variables designed to measure end results: the health of mother and infant, educational status, subsequent pregnancy, employment status, and financial support. These were measured at several points in time between registration for the YMP and IAS programs, and two years postpartum. When possible, hospital and school records were used to obtain comparable data on the Comparison group. Other data on this population were obtained by home interview at six years postpartum.

Preexisting Characteristics. Although this study was designed to investigate the impact of special programs on the lives of school-age pregnant girls, it was anticipated that the direction of their lives also would be strongly influenced by their personal and social characteristics at the time they entered the program. Their home environment, upbringing, and earlier decisions regarding life style would define the range of possibilities open to them in the future.

The preexisting characteristics studied (i.e. the characteristics of the girls at the time they registered for the YMP, IAS, or obstetric clinic) included the familiar *demographic* variables—age, race, religion, birthplace, length of residence in New Haven or Hartford, household size and composition, parity, and ordinal position: *educational* variables—school status, last grade completed, educational goals, and appropriateness of grade to age; and *economic* variables—welfare status and socioeconomic quartile. No direct measure of amount or source of income or social class was obtained for several reasons: the interviewers felt such questions involved an invasion of privacy and thus were unethical; the questionable accuracy of reporting on these items by girls varying in age from 13 to 18 on initial interview; the possibility of loss of rapport and refusal of subsequent interviews resulting from such questioning; and the absence in a large percentage of the households of the father upon whose education and occupation estimates of social class are usually based. The lack of these measures is unfortunate but not crucial. For all groups welfare status at registration, and for the YMP socioeconomic quartile based on residence,[7] were utilized as alternative measures of income and socioeconomic class.

Measures of Program Participation. Several variables were used to measure the quantity and quality of contacts between the participants and the program services.

Quantity of contact: The amount of contact was measured because of an assumption that interaction between participants and services was one mechanism for favorably influencing outcomes. The indicators of the quantity of contact included: with the *medical* part of the program, the number of antepartum clinic visits, return for a postpartum visit, and acceptance of a contraceptive method; with the *educational* part, attendance at special school and numbers of days attended; with the *social work* component, YMP only,[8] the number of individual social work interviews and the number of antepartum group sessions attended.

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[7] On the basis of the special 1967 census, all the New Haven Standard Metropolitan Statistical Area (SMSA) was divided into "block groups" of approximately one-quarter census tract size. Each block group was assigned to one of four socioeconomic quartiles on the basis of family income, occupational status, educational attainment, housing quality, and family organization (U.S. Bureau of the Census, 1971).

[8] The greater informality of the IAS program made it impossible to quantify social worker-client interaction in Hartford.

Acceptance of services: The quantity of interaction within the special programs might be influenced by such factors outside the control of the individual girl as premature birth (which would reduce the number of antepartum visits and school attendance days), a complicated pregnancy (which could increase the number of clinic visits), the time of year (classes were discontinued at McCabe during the summer), and home factors that might reduce her ability to attend clinic or school sessions. Also, when a social worker felt concerned about a client she might try to schedule more individual casework sessions with her than with those who appeared to have minimal problems.

The amount of interaction between a girl and the program, however, also depended partly on her own decision about how deeply involved she wanted to become in the programs, i.e. her acceptance of the program's services. The service personnel sought to make their services accessible and acceptable, but they could not force the girls to take advantage of them. Although many of these variables could be influenced by external factors as well, the acceptance variables[9] considered largely under the control of the girl herself, included, in the *medical* area, the number of weeks of gestation at the time of first clinic visit, percentage of antepartum clinic appointments kept, and acceptance of contraceptive method; in the *educational* area, choice of special school, regular school, or no school, and, for those in the special school, percentage of registered days actually attended; in the *social work* component, percentage of assigned group discussion sessions actually attended, quality of participation in these sessions, appropriateness of use of social work services, and response to the social worker's recommendations. (These last three variables were based on rating scales completed by the social workers.)

Variations in service: Although for most analyses the YMP and IAS are considered unitary programs, there were variations in the service patterns, some of which could be analyzed for their effects on participation and outcome (McKinlay, 1972). Three such variations were studied in the YMP groups: Was an obstetrician or a nurse-midwife the primary source of medical care? Which of the three social workers assumed responsibility for the client? Was the girl assigned to a discussion group? In the IAS group two variations were studied: source of prenatal care and hospital at which delivery occurred.

These differences might have a direct effect on outcomes (some personnel might give better care than others), or the differences might have an indirect effect (some personnel might be more attractive to the girls and stimulate more participation).

Descriptive Variables. Much of the material from the three postpartum interviews fell into the category of descriptive or explanatory variables. Examples are the answers to such questions as, "Who takes care of your baby while you are at school [at work]?" "Why did you want to have that many children?"

Data Collection Procedures[10]

Hospital Records. Hospital records were the major source of information about the health of the mother through pregnancy, her labor and delivery history, and her health and that of her infant for two years after delivery. In New Haven an experienced nurse abstractor collected information for both the YMP and Comparison groups on standardized forms from the records of the Y-NHH and also from the only other hospital in New Haven, the Hospital of Saint Raphael. In Hartford an equally experienced abstractor collected parallel information on the IAS mothers and infants from the three Hartford hospitals with obstetric services: Hartford, Saint Francis, and Mount Sinai. Permission was obtained to examine the records of those girls who received prenatal care from private physicians.

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[9] Some of these variables were measured for the YMP group only.

[10] Copies of the data collection instruments are available upon request from James F. Jekel, M.D., Laboratory of Epidemiology and Public Health, Yale University School of Medicine, 60 College St., New Haven, Conn. 06510. Please specify interest in interview schedules, hospital record abstract forms, and/or clinician rating forms. A chart relating the types of variables to the data collection procedures can be found in Appendix D.

Interviews. The principal source of information on the remaining outcome variables was three waves of interviews with the YMP and IAS study groups and one with the Comparison group. The target dates for the three interviews with the YMP and IAS group were 2, 13, and 24 months postpartum. Problems with locating the respondents, however, led to delays and loss of respondents (Table 3-1).[11] Since the Comparison group was from five to seven years postpartum at the time interviewing began, locating its members was even more difficult.

The frequent moves of many of the young mothers made "inability to locate" the main source of interview loss. The assistance of many individuals and agencies was enlisted in the search for new addresses. These included hospitals and other cooperating health facilities, the New Haven Housing Authority, the relocation office of the New Haven Redevelopment Authority, and the Post Office. Additional information was obtained from other respondents, through accidental meetings, and from neighbors, although they were often understandably reluctant.

Once a new address was obtained, the interviewers were exceptionally persistent in their attempt to obtain an interview. They worked weekends and nights, despite the dangers inherent in this effort.

Refusals accounted for few of the losses. In some instances young mothers or their parents chose not to cooperate with the "establishment," but more often the weight of personal problems appeared to have sapped the energy needed to give an interview. The majority of the girls were cooperative. Several stated that they enjoyed being interviewed and were pleased to share their feelings and show off their babies to an interested outsider. Establishing rapport between interviewer and respondents at early visits appeared to assist in maintaining contact for later ones.

In both the YMP and the IAS groups, those young mothers who were reached for each interview were compared with those who were not. For the YMP group, nothing approaching a statistically significant difference was found between the two groups on any of the demographic, economic, or participation variables. For the IAS group, two of thirty associations reached statistically significant levels. Since one or two of the thirty would be expected to be significant at the 5% level by chance alone, this comparison of the characteristics of those interviewed and those not, at each interview wave, suggests that the loss did not introduce any bias.

In New Haven all three waves of YMP interviews were done by a Yale faculty member employed by the research project. A registered nurse with research experience, she participated in all phases of the investigation, including the design of the interviews. She remained apart from the YMP service activities at the Y–NHH and the McCabe Center so that participants would not associate her with the program staff and, it was hoped, would speak frankly of their experiences in the program.

In Hartford, primary responsibility for the interviews was assumed by another of the project's research associates, a specialist in human development, who also participated in other research activities. She did all the first-wave interviews, 75% of the second, and 29% of the third. She recruited and served as consultant for two experienced interviewers who completed the task. In Hartford, also, the interviewers were kept separate from the IAS program to prevent their identification with it by the respondents. The Comparison group interviews were conducted by another member of the research staff, a practical nurse, with the assistance of the research associate who did the YMP interviews. All five interviewers were raising or had raised families and, with the exception of the research associate in Hartford, all were black women.

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[11] Although the median number of months postpartum at interview was not identical for the YMP and IAS groups, for ease of reporting, the median figure is used: 3, 15, and 26 months postpartum.

The interview schedules were standardized with both closed and open-ended questions. The interviewers were instructed not to vary from the order or wording of the questions without an overriding reason such as loss of rapport. Probing questions were provided, if deemed necessary, and interviewers were asked not to interpret questions beyond the instructions on the schedule. The interviews were difficult to conduct since the YMP and IAS respondents varied in age from 13 to 20 years, and a great deal of detailed information was sought. (The Comparison group respondents were somewhat older.) Frequently the interviewer had to allay the anxieties of the respondent's mother in order to gain entry and privacy; often the new baby served as a natural means to initiate communication with the young mother. The interview was conducted in the respondent's home except in rare instances when the respondent requested it be held elsewhere.

Rating Forms. A third major source of information, for the YMP group only, were the rating forms completed by members of the Young Mothers Clinic staff. The social workers completed one form on the basis of their intake interviews, another one after each group session, and a final one after the young mother's delivery. These provided socioeconomic data, information on participation in the program, use of other agencies, and rating scales on various aspects of the girls' present and predicted future behavior. The delivering obstetrician, resident, or nurse-midwife also completed forms dealing with labor, delivery, and the immediate postpartum period. In addition, the psychiatrist reported on girls referred to her.

Other Records. In both New Haven and Hartford some information was obtained from records of the regular and special schools. The abstracting was done on special forms by the research staff.

Methods of Analysis

Two basic methods of analysis were used in this study. First, the three different study groups were compared with each other at equivalent points in time to determine whether the groups receiving special services did better on the study criteria than did the group not receiving them, and to determine if one of the special programs produced better outcomes than the other. Second, *within* the study groups (especially the YMP group), both the preexisting characteristics of the girls and the degree of their participation in the programs were related to measures of outcome, in order to determine the relative impact of the two classes of variable (and of specific variables within each) on the outcomes. One of the techniques used for this analysis is multiple regression, which is discussed in detail in Appendix E.

The primary attempt to achieve comparability of study groups was through the uniform intake criteria: under 18, unmarried, resident of the central city at registration for care, and carried the pregnancy past week 20 of gestation. These criteria however did not eliminate two differences between the YMP and IAS groups, which seemed minimal when the project started but major as time went on. The first was that the YMP accepted girls below grade 9, whereas all in the IAS were in grade 9 or above. The second was that all in the IAS group attended the special school since intake was through that facility, but only 83% of the YMP participants attended the special educational program at the McCabe Center since intake was through the special obstetric clinic. The very young girls might easily differ from the older ones, and those who did not attend a special school were probably different from those who did.

To enable valid comparisons between the YMP and IAS groups, two subgroups were created within the full study groups by eliminating the seventh and eighth graders and all of those not attending the McCabe Center from the YMP sample. Further homogeneity was achieved at the cost of minimal loss of sample size by eliminating the small number of whites from both groups; the white study participants were consistently less successful in achieving program goals than the black girls. The subsamples for comparing the YMP and IAS programs are called the matched samples, even though "matched" is used with less precision than in epidemiologic studies. The intent, however, is the same: to create a comparison or control group as much like the experimental group as feasible, when selection by random methods is not possible. In evaluating outcomes among the three groups, the total samples will be used to compare the groups served by special programs with the Comparison group, and the matched samples will be used when only the YMP and IAS groups are contrasted.

Limitations of the Study

No single study can answer all the questions that might be asked about pregnancy in girls of school age. In designing this project, certain areas were selected for analysis, others were eliminated. For instance, the study is restricted to young women who were already pregnant. It does not consider directly the more fundamental issues involved in the prevention of school-age pregnancy. Also, the decision to eliminate married school-age mothers now seems unfortunate, although the unwed were the focus of attention at the time the study was conceived. Similarly, in 1967 most programs were being developed in special schools outside of regular school buildings. Currently, pregnant girls are being encouraged to remain in regular schools, and often in the regular classrooms, but this study can not determine whether this approach will be more or less successful than special programs outside the regular schools.

Other limitations have resulted from problems in research design, such as lack of an ideal control group and difficulty in specifying program goals in measurable terms. Moreover, each of the data sources mentioned has limitations. Medical records are expected to be accurate, but gaps often exist, and sometimes records are missing. The same is true of school records. Data from the rating forms were based on judgments by the clinicians, which were subject to error due to incomplete knowledge of the client or to the perspective of the clinician.

The problems associated with gathering data by interview are well known and have been discussed elsewhere in detail (e.g. see Fein, 1970-71). Some differences in response could be expected because of differences in race, education, and personality of the interviewers, even though attempts were made to limit these by standardizing the interviewing technique. Interpenetrating samples were not possible because of the distance between the study cities. Although the relatively high proportion of young mothers who were followed for over two years minimized bias due to selective nonresponse, errors might have resulted from the lateness of some of the interviews due to difficulty in locating the young mothers.

Validity checks suggest the accuracy of the interview data: When several sources were examined by a student research assistant to determine the proportion of YMP girls in school (70%) or graduated (6%) at two months postpartum (Foltz et al., 1972), the figures were similar to those obtained from the 3-month interviews (74% and 6% respectively). Also, the proportion of the YMP group with reconceptions by 24 months postpartum, as determined by calculating backward from delivery dates given in hospital records (51%), was close to the 26-month postpartum reconception figure derived from interviews (48%). The difference, however, was greater at 15 months postpartum: by this time, according to interview 25% had been pregnant again, and by calculation 33% had conceived again. Pregnancy was occasionally denied by the young mothers, even when it was apparent to the interviewer. This happened more often during the second interview than during the final one.

The accuracy of attitudinal data as reported in interviews always is questionable, but most of the young mothers appeared to have positive feelings about the special service programs, and many appeared to enjoy talking about their experiences with the programs and as a mother. Highly personal information, however, especially if it was negative in import, was seldom offered in the absence of a specific question. For example, suicide attempts and the use of drugs or alcohol were not mentioned, even when documented in hospital and emergency room records. The mothers appeared to admit freely to more general problems, such as dislike of school or job, or difficulties with parents.

Generalization of Findings

Two major unsolved questions in evaluative research are whether and when the findings from one or more programs can be generalized to others, and whether a program that has an impact can be duplicated by other perhaps very different persons in other perhaps very different circumstances. The general methodological problem, which is of concern in many areas of science besides program evaluation, is described by Hauser and Duncan (1959, p. 5):

> *This is the problem of "historicism"—that is, the question of the extent to which generalization drawn from data localized in time and space can lead to generic propositions as opposed to descriptions of unique situations.*

Suchman (1967) reviewed this issue and suggested distinguishing between "program testing," which is evaluation of a total service product, and "variable testing," which is evaluation of the effectiveness of specific components of a program:

> *Program testing has almost no generalizability, being applicable solely to the specific program being evaluated. Generalizations (to other projects, populations, times) have the status of untested hypotheses. This is a major reason why so many evaluation studies appear repetitive—one can never be certain that a program which works in one situation will work in another. To the extent that evaluative research can focus upon the general variables underlying a specific program and test the effects of these variables rather than the effectiveness of the program as a whole, it may hope to produce findings of greater general significance.*

Separating out the different components and evaluating them individually appeared to be at variance with the frequently expressed opinion that what is important for pregnant school-age girls is a total program. Nevertheless, the reality of this dilemma forced the research team increasingly to focus on evaluation of components of the program.

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Table 3-1. Median Month of Postpartum Interviews, and Percentage of Each Interview Obtained, YMP and IAS

	Interviews					
	YMP			IAS		
	1st	2nd	3rd	1st	2nd	3rd
Median number of months postpartum	4	16	25	2	14	27
Interviews obtained	97%	91%	82%	92%	79%	74%

4 Client Participation in the Programs

The premise upon which programs for school-age mothers are based is that participation in the programs will have a positive effect on a pregnant girl and help her to reach her own goals and/or those set by the program. Working on this assumption, the staffs seek to recruit girls who meet the program requirements and then engage them as actively as possible in the program. The proportion of eligible girls who register, and the degree of their participation in the programs, depend on the interaction of a constellation of factors, including medical, programmatic, attitudinal, motivational, and socioeconomic factors. This chapter will assess the success of the two special programs in recruiting and encouraging participation.

Recruitment into the Programs

Neither the Young Mothers Program nor the Inter-Agency Services Program served all the pregnant girls eligible for their programs. New Haven's special program appeared, however, to reach a larger percentage, and this seemed related to its base in a medical service.

New Haven. During the project's 22-month intake period, 44 girls delivered at the Yale-New Haven Hospital who met the study criteria (under 18 at delivery, unwed, and residents of New Haven when they came for care) and yet did not register in the Young Mothers Clinic. A large proportion of this group, 15 (34%), was under private care. Although ineligible for the clinic program, girls could, and frequently did, enroll in the educational program at the McCabe Center. Another sizable group, 9 (20%), delivered without receiving any prenatal care, and the remaining 20 (43%) were seen in obstetric clinics other than the Young Mothers Clinic, either by choice or by accident. An additional 32 meeting the study criteria delivered at the other general hospital in New Haven, the Hospital of Saint Raphael, where private cases accounted for 22%, no prenatal care 3%, and clinic cases 65%.

An analysis of these 76 girls showed that they differed from the study group only in that a higher proportion was white (27% at Yale-New Haven Hospital and 13% at Saint Raphael). Those delivering without prenatal care could not be distinguished by demographic characteristics from those who did. Thus, the Young Mothers Clinic served about 70% of all those in the city who delivered during the intake period and who would have been eligible for their services on demographic characteristics. It served about 77% of those who were eligible and did not choose private care, and about 80% of clinic cases (i.e. excluding those choosing private care and those who had no prenatal care).[1]

Hartford. Several types of information suggest that IAS enlisted a smaller percentage of the eligibles than the YMP, despite the fact that IAS accepted girls who were receiving care from private physicians. This difference appears to be due directly to the intake policies of the program.

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[1] These two groups were selected on slightly different criteria: the study group registered for clinic during the 22-month period, while the non-YMP delivered during the same period. There is no reason to believe that this affects the validity of the comparison.

Size of group: The YMP study population is larger than the IAS despite the fact that intake into the sample was two months shorter, and Hartford, according to the 1970 census, was larger by 20,310 overall (158,017 to 137,707) and by 1,060 females in the 14–17 age range. This suggests either that there was a smaller risk of pregnancy among single girls under age 18 in Hartford, or that the Hartford program enrolled a smaller fraction of the eligible population. The first possibility can be eliminated since there were no significant differences between the two cities in the rates of out-of-wedlock births for school-age mothers. Estimating the population at risk in each city by taking the number of girls aged 14–17 in each city in the 1970 census as the denominators, one obtains *total* birth rates for the 14–17 age group of 53/1000 in Hartford and 49/1000 in New Haven. The corresponding estimated rates of out-of-wedlock deliveries in the two cities for the same age group are 33/1000 and 32/1000.

Since the IAS program in Hartford served an average of 80 new girls per 12-month period, and in 1963 there were 163 out-of-wedlock deliveries[2] to girls under 18 from the city of Hartford, the IAS program served approximately 80/163 or 49% of the eligible girls. In a similar analysis, the YMP served 180 new girls during a 22-month intake period, or about 100 new girls per 12-month period. The YMP therefore served approximately 100/123 or 81% of the eligible girls the same year. All of the evidence indicates that the New Haven program reached a higher proportion of the target population.

Intake policy: Part of the difference in percentage served can be accounted for by two variations in intake policy between the study programs: the school run by IAS provided instruction only for grades 9 through 12, and girls were accepted for the IAS program only if they were still in school. The first policy eliminated all girls of 12 and 13 and many of the 14-year-olds. These three age groups comprised 20% of the YMP population, which accepted all girls 17 and under and whose affiliated educational program at the McCabe Center provided instruction from grade 7. The number of girls in the two study populations aged 15–17 are similar (144 YMP as compared to 147 IAS). In view of the shorter YMP intake period and the larger population base in Hartford, however, one would expect IAS to have a greater excess of girls aged 15–17.

The second variation in intake policy probably was the cause of the small numbers in the 15–17 age range and also of certain differences in population characteristics between the two groups. By limiting intake to those girls still in school, IAS reduced the number of eligibles and may have attracted only the more highly motivated girls.

These findings have significance for those who plan programs. They suggest that a program with a hospital base, because it provides an essential service, i.e. delivery, may reach pregnant girls regardless of their motivation toward additional education, family planning, or change in life style. A program based in a school or social agency may draw a more highly motivated group.

Participation in Medical Aspects of the Program

Attention will be given in this section not only to the number of contacts between the

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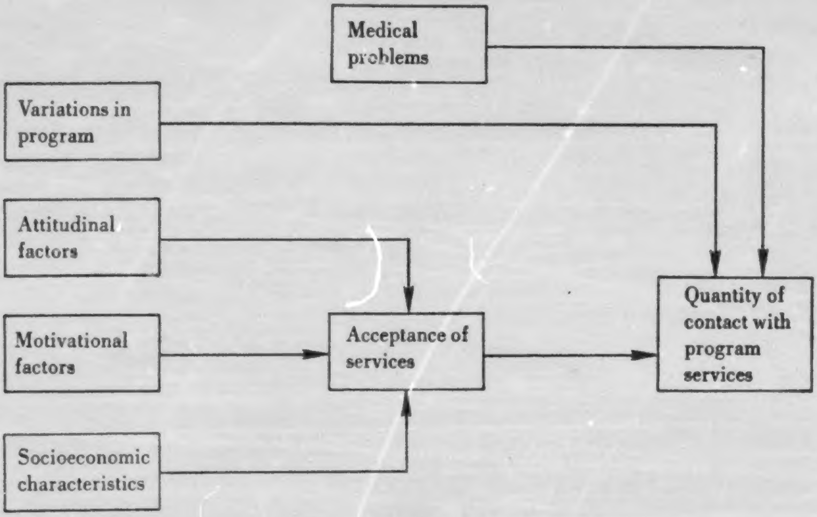
[2] The Health Department classification of out-of-wedlock births is based on status at delivery, whereas the research criterion is based on status at registration.

Fig. 4-1. Factors Influencing Participation in the Program


Medical problems
Variations in program
Attitudinal factors
Motivational factors
Socioeconomic characteristics
Acceptance of services
Quantity of contact with program services

patient and the program, but also to the factors that affected the contacts.[3] These determinants will be divided into those outside the control of the individual (medical problems and variations within the programs) and those that influenced her acceptance of the services (variations within the programs,[4] attitudinal and motivational influences, and socioeconomic characteristics) (Fig. 4-1).

Number of antepartum clinic visits. Most obstetricians recommend that a pregnant woman begin prenatal care in the first trimester of pregnancy (before week 14 of gestation). The rationale is that the earlier the care is initiated the greater the opportunity to guide the patient into proper habits of diet, rest, and so on, and the better the chance to detect possible problems while they are remediable. If care did begin during the first trimester, a woman might be expected to make ten to fourteen visits to a clinic during her pregnancy (one visit per month during months 3–6, two visits per month during 7 and 8, and weekly visits in the ninth month).

The average *number of visits* made by YMP, IAS, and Comparison participants is somewhat below that figure (Table 4-1). The differences between YMP and IAS are small: the average number of visits for YMP was 8.49 with a range of 1–18 and for IAS 8.39, range 1–22. The Comparison group, however, had significantly fewer visits: a lower average, 6.25, and a narrower range, 1–16.

Factors Affecting Visits. *Medical problems:* The number of visits a woman makes to a private physician or clinic during pregnancy is dependent on several factors that are under her control, but also, equally important, on several that are not. The two most important factors not under her conscious control are medical: prematurity and pregnancy complications. Premature birth reduces the length of the period during which a mother can keep medical appointments—it actually decreases the number of visits out of proportion because the time is taken from the last few months of the pregnancy when the rate of visits is highest. Conversely, medical complications may cause the attending physician to request his patient to visit him more often, so that he may attempt to keep the condition under control or make the necessary intervention.

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[3] Only those relationships reaching the 5% level of significance by either the chi-square test or correlation coefficients will be discussed.

[4] Variations in the program could affect participation directly; for example, if one social worker routinely scheduled more appointments with her clients than the other workers, or indirectly as when one worker was better liked and therefore more frequently sought out by her clients.

Within each of the three study groups, prematurity reduced the number of clinic visits, as predicted. The differences in the number of visits among the three groups, however, were not entirely explained by the differences in the rate of prematurity (Table 4-2). The presence of complications of pregnancy had no significant effect on the number of clinic visits in any of the three study groups.

Variations in program: Although this report treats all 180 members of the YMP group as though they were enrolled in a single program, there were variations which could affect participation directly or indirectly through their effect on attitudes toward the program and its personnel.

The three variations in the YMP program to be considered are whether obstetric care was provided by nurse-midwives or obstetricians, which social worker assumed responsibility for the client, and whether the girl was assigned to a discussion group. Only assignment to a discussion group had an impact on the number of appointments kept; those assigned kept more appointments.

Neither of the two variations in the IAS program, i.e. source of antepartum care or hospital where delivered, affected the number of antepartum visits.

Acceptance of services: A girl's decision about when to register for care and whether to keep her appointments will affect the number of visits. The pregnant girls in YMP and IAS might be expected to have come in for obstetric care earlier than those not in special programs, because such care was required and because they were strongly encouraged by the school personnel to seek care early (Table 4-2). The figures support this expectation although the differences are not as striking as might have been expected.

On the average, the IAS participants registered for obstetric care about one month earlier than the Comparison group, and about two weeks earlier than the YMP group (Table 4-3). The latter difference may be partly due to the fact that for a few months the YMP clinic was swamped with new admissions, and many pregnant girls without obvious medical problems had to wait some weeks for their first appointments. Some of the IAS group also had to wait for appointments, however, so the difference in time of registration may be real. As expected, registration affected number of visits: the earlier the registration, the more visits made ($p < 0.001$).

The *percentage of visits* kept by YMP participants (the only group for which these data were available) was surprisingly high in comparison with other studies of appointment-keeping: 75% of the YMP girls kept 80 to 100% of their appointments, 18% kept 60–79%, and only 7% kept less than 60%.[5] The percentage of clinic appointments kept was positively correlated with the number of visits made ($r = 0.313$; $p < 0.001$).

Attitudinal factors: A patient's feelings about the program, its services, and its personnel could affect acceptance of medical services. For this reason, several questions related to perception of the program's helpfulness were included in the first interview. The girls' responses to the questions about their attitude toward the program as a whole and toward the medical aspects were so overwhelmingly favorable that they could not be used in this analysis. In the social service area, however, there was a diverse range of answers among YMP participants to a question about the helpfulness of social workers, but attitudes toward program social workers did not affect either percentage of appointments kept or actual number of clinic visits. None of the three variations in the YMP program affected the percentage of appointments kept.

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[5] The figures are based on weekly records kept by one of the research assistants who was stationed in the Young Mothers Clinic. They may not be wholly reliable since broken appointments occasionally were not noted and some extra appointments were made and not recorded.

Motivational factors: This study contains no sensitive indicator of the participant's motivation toward the achievement of the outcomes already discussed. Two items, however, can be used as crude measures of motivation: whether the girl was still in school when she registered for clinic (YMP only), and her educational goals. In the YMP group, girls who were still in school at registration did not register early but did keep a higher percentage of clinic appointments. Educational goals did not affect time of registration or the number of antepartum clinic visits, but those with high educational goals kept a high proportion of their appointments. Among IAS participants, educational goals influenced neither time of registration for antepartum care nor number of visits.

Socioeconomic characteristics: Of the eleven socioeconomic factors described in the previous chapter, none affected the time in pregnancy at which the YMP group registered. Socioeconomic quartile affected appointment-keeping and in a direction opposite to most predictions: girls from higher-ranked neighborhoods were less likely to keep a high percentage of appointments than those from poorer neighborhoods (Table 4-4). None of the socioeconomic variables influenced time of registration in either the IAS or the Comparison groups.

Return for Postpartum Visit. A visit to the attending physician a few weeks after delivery (usually six weeks) is considered essential to good obstetric aftercare and provides an opportunity to discuss a contraceptive program, if this was not done at the time of hospital discharge. Presumably, a mother's perception of the importance of this visit is influenced by her relationship to service personnel and their ability to communicate with her.

Over 95% of the YMP mothers came in for their postpartum checkup. By contrast, only 73% of the IAS population and 75% of the Comparison population returned for a postpartum check (Table 4-5).

Medical problems: Girls who had experienced complicated pregnancies or premature deliveries might be expected to be more anxious about their health and, therefore, more likely to return on time for a postpartum visit. The data did not support this hypothesis: in the YMP group premature delivery was associated significantly with having either no postpartum visit or a late one (after 8 weeks postpartum) (Table 4-6). This relationship was confirmed in the IAS ($p < 0.05$), but not in the Comparison group. Pregnancy complications did not influence postpartum return.

Variations in program: In the YMP group, patients assigned to nurse-midwives were significantly more likely to return on time than those assigned to obstetricians. Those assigned to a discussion group also were more likely to return on time.

In the IAS group, girls who received care at a hospital clinic were more likely to return for a visit than those under the care of a private physician. Variation existed among the hospitals, with Mount Sinai clinic patients having the lowest rate of "no visit" and the highest of "on time" (Table 4-7).

Motivational factors: Being in school at registration and having high educational goals favorably influenced return for a postpartum visit in the YMP group. Educational goals however did not appear to influence postpartum return in the IAS group.

Socioeconomic characteristics: None of the socioeconomic factors under study was related to postpartum return in any of the three groups except number in household, which had a significant effect on return in the IAS group: girls from larger households were more likely to return.

Acceptance of a Contraceptive Regime. Both the YMP and the IAS programs considered delay of a subsequent pregnancy to be an important goal. In this area the Comparison group provides little insight because prescription of contraceptives was illegal during the period when this group was studied. According to hospital records 81% of all YMP mothers and 85% of those who returned had had some type of birth control measure prescribed at their first postpartum visit. The comparable figures for IAS are 34.0% and 45.4% and for the Comparison group 2% and 3% (Table 4-8).

Variations in program: Only among the IAS participants did a program variation influence contraceptive use. The relationship between source of prenatal care and acceptance of contraception was similar to the one found in return for postpartum visits: mothers under private care were less likely to have a contraceptive prescribed than those under clinic care, with the exception of Saint Francis Hospital, where contraceptives were not prescribed (Table 4-9).

The clear association between return for postpartum visit and prescription of birth control measures in the IAS group suggests either that the mother's decision to return for a postpartum visit was influenced by her knowledge of the availability of contraceptive measures, or alternatively that the rate of prescription by the private physicians was a secondary result of the low rate of return (Table 4-10).

Socioeconomic characteristics: In the IAS group only, weak associations were found between age, race, and the number in the household on the one hand, and acceptance of contraceptives postpartum on the other. Younger and black girls were more likely to receive contraceptives than older and white or Puerto Rican girls, and those from large households were more likely to receive them than those from small households. No other socioeconomic variables were associated with acceptance of contraceptives, nor were any medical, attitudinal, or motivational variables in any of the three groups.

Participation in Educational Aspects (YMP Only)

Registration at McCabe Center. In New Haven all girls who registered for care at the Young Mothers Clinic were urged to attend the special educational program at the McCabe Center, with which the clinic maintained close ties. Only 151 chose to attend McCabe. Four of these girls later transferred to homebound instruction. Among the remaining 29 girls who did not attend McCabe, 25 did not attend school at all, and 4 continued in regular school.

The most important factor influencing registration at McCabe was school status. Ninety-six percent of the 150 participants attending school at the time of clinic registration enrolled in McCabe, in contrast to 23% of the thirty girls who had dropped out previously. Only one of the girls attending regular school at the time of clinic registration did not continue her education at McCabe, at her regular school, or on homebound instruction during pregnancy. Although both clinic and school personnel tried to convince girls to return to school, only seven of the thirty dropouts enrolled in McCabe.

Other major factors affecting attendance at McCabe were educational goals, age, and parity. The girls who had high educational goals, were younger, and had not been pregnant before were more likely to attend McCabe Center.

Attendance at McCabe. Of the 150 girls[6] enrolled at McCabe for whom data are available, 39% attended less than 40 days, 35% for 40 to 59 days, and 26% for 60 days or more. The actual number of days spent at the McCabe Center could be influenced by the same factors that influenced number of antepartum clinic visits: those not under the girl's control (prematurity and pregnancy complications), and those she could influence (time of registration and absenteeism for nonmedical reasons). Surprisingly, neither prematurity nor pregnancy complications affected number of days attended, nor did the time of clinic registration. The main influence, therefore, was the percentage of days the girl attended.

Regular attendance at the special educational program was considered important if the patient was later to return to regular school without loss of credit. McCabe Center personnel tried to encourage the pregnant girls to attend school regularly. A member of the school staff would telephone to inquire into the reason for a student's absence and to offer medical or social services if needed. However, perfect attendance was not possible since most girls were absent for about two weeks after delivery and attendance figures were calculated from the day of enrollment in McCabe Center until the day the new mother returned to a regular school program. Of the 150 McCabe girls, 35% attended less than 50% of the days they were enrolled, 35% attended 50 to 69%, and 29% attended 70% or more of the days. Educational goals were positively associated with attendance, as was school status at registration: the higher the goals the better the attendance, and those in school at clinic registration were absent less. Being a welfare recipient negatively affected school attendance. Other socioeconomic, program, and attitudinal factors were not important.

Participation in Social Service Aspects (YMP Only)

In both the YMP and IAS programs, interaction between the social workers and the clients was considered essential to the attainment of program objectives. Presumably, the greater the interaction, the more the social worker could help and the greater the potential for successful outcomes. One exception to this expectation was the number of individual social work interviews, which might be greatest among those girls with the most severe problems and therefore probably not predictive of successful outcomes.

Three social workers were active in the YMP during the study period, although there were only two at any one time. Social worker A (who was working when the study began, and left shortly before the last client was admitted) was responsible for nearly half of the clients during this period; social worker B (who was working when the study began but left after less than one year) assisted 17% of the group; social worker C (who was hired midway through the intake period) was the sole worker for 30% and handled another 4% in combination with one of the other two.

Individual Social Work Interviews. Two interviews at the hospital usually were necessary to determine whether the client had any problems with which she needed help, and to begin assistance either through the program directly or through referral to other agencies. Additional individual casework was offered only to those clients with special problems. Twenty-five per cent of the clients were interviewed only once and 16% twice. Seven patients refused any interview. At the other extreme, 39% of the clients met individually with their social worker five or more times. The median number of interviews was between three and four.

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[6] One girl who attended McCabe on a noncredit basis is not included in this analysis.

Medical problems: Girls whose pregnancy was complicated by medical problems were interviewed more frequently by their social workers. This probably reflects the training of the workers in medical social work, and their increased concern with clients who had medical difficulties.

Variations in program: The social worker to whom the client was assigned had a significant impact on the number of her interviews with the girl. Omitting the eight patients who had more than one social worker, all 54 girls assigned to social worker C had two or more interviews (the average was 5.8). The comparable figures for the other social workers were: 49% of social worker A's girls had two or more interviews (the average was 3.1; N = 88); and 83% of B's girls had two or more interviews (the average was 3.9; N = 30).[7]

Attitudinal factors: The helpfulness of the social worker, as perceived by the young mothers at the time of the first postpartum interviews, was associated with the number of social work interviews. Girls who reported that their social worker was helpful had more interviews ($p < 0.001$; Table 4-11). The explanation of this association is not clear. It may be that the volume of service determined the girls' perceptions of its value to them. Alternatively, the number of interviews and the perception of helpfulness may have been determined by the quality of the relationship between the social worker and the client. Motivational factors and socioeconomic characteristics did not affect the number of interviews.

Group Session Attendance. Despite the clinic staff's belief in the importance of attending the social worker-led sessions, almost 33% of the YMP group attended none, another 33% attended less than four, 23% attended four to seven, and 12% attended eight or more. The actual number of group sessions a girl attended could be influenced by the same factors that affected the number of clinic visits and the number of days' attendance at McCabe: those not under the girl's control and those she could manipulate. In addition, one variation in the program over which the girl usually had no direct control affected group session attendance: whether or not she was assigned to a group.

Variations in program: Twenty-eight girls were not assigned to a social worker's group. Nineteen were among the group of 29 who did not register at the McCabe Center where most of the sessions were held for the girls' convenience, and seven were not assigned for other reasons such as illness. Two girls in the study group attended a special group run by a social work trainee, and they were not included in this analysis.

Attendance at group sessions was not affected by prematurity, pregnancy complications, or stage of pregnancy at registration. The main influence apparently was the girl's decision whether or not to attend.

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[7] In the latter part of the program the locus of most social work interviews switched to the McCabe Center where the girls were more accessible. This worked in favor of social worker C and, to some extent, A; B had already left the program.

Among the 152 who were assigned to group sessions, 31 never attended: 14 refused, either because of lack of interest or because they were employed; 7 either never attended McCabe Center or dropped out shortly after entering; one girl had a long illness; and the reasons were not known for 9.

Of the 152 who were assigned to group sessions, 52 (34%) attended less than 20% of the sessions for which they were eligible; 26 (17%) attended between 20 and 39%, an identical number between 40 and 59%, 24 (16%) between 60 and 79%, and an identical number over 80%.

Attitudinal factors: The client's perception of the social worker's helpfulness (measured at three months postpartum) affected the percentage attendance, and the number of social work interviews. The same uncertainty prevails about the direction of causation, but the quality of the relationship between the social worker and client was likely to be more important here than in the case of the individual interviews, since it was more difficult for the social workers to take initiative.

Motivational factors: A girl's educational goal at registration was predictive of her session attendance, if she was assigned: the higher her educational goal, the better her attendance ($p < 0.01$).

Socioeconomic characteristics: Welfare status at registration was associated with attendance at the group sessions. Girls whose families were independent of welfare had a higher percent attendance than those whose families were on welfare ($p < 0.01$).

Quality of Participation in the Group Sessions. After each session, the social worker leading the group recorded the degree of participation for each girl present and scored it on a scale of one to four points:

Active participant	asked questions, leadership role (4)
Normal participant	answered questions, spoke occasionally (3)
Active listener	spoke infrequently (once or twice) seemed interested (2)
Withdrawn	apathetic, not interested (1)

Average participation scores were obtained by adding all points received at all sessions attended and dividing by the number of sessions for which participation was noted. Only 12% of the patients who attended any sessions were rated as consistently active; 55% fell into the normal range; 29% were described as listeners; and 4% were withdrawn. The average participation score was 2.7.

Two factors influenced the quality of participation: educational goals and age. Those who participated more actively in the group sessions were older and had higher educational aims.

Utilization of the Social Worker. After a client delivered, the social worker was asked to rate her on the following scale: "In your opinion did this patient demand more attention than her problems seemed to require (1), request social worker's time appropriately (2), or make too little use of her social worker? (3)" The social workers rated none of their clients as excessively demanding. Of the clients they could evaluate, the ratings were almost equally divided between appropriate and too little use of the social worker.

Two factors were positively associated with appropriate use of the social worker: short residence in New Haven and positive feelings about social worker. Perhaps newcomers had more adjustment problems and were given more help. The relationship between use of the social worker and the girl's perception of her helpfulness is affected by the fact that both are related to a third variable: the amount of contact between the two.

Response to Recommendations. The social workers also were asked to rate their clients in terms of their response to recommendations. On this scale the social workers judged 21% to be "very cooperative" and 50% to be "somewhat cooperative"; 21% were rated "not interested" and 8% "rebellious."

Two factors were associated with cooperativeness: the social worker to whom the girl was assigned, and the girl's feelings about the helpfulness of her social worker. Girls assigned to social workers B and C were more likely to be rated as cooperative or somewhat cooperative, while those assigned to A were more likely to be rated as rebellious or showing no interest. The more helpful the girls felt their social worker to be, the more likely she was to rate them as cooperative.

Interaction among Measures (YMP Only)

The various measures of participation were not independent of each other. Also, in some cases significant associations were found between one measure of motivation or one socioeconomic characteristic, and two measures of participation. In that situation, the association between the participation measures might have been due to the prior variable, and therefore not causal. For example, girls who had a larger number of clinic appointments were more likely to return for a postpartum visit. This might have resulted from the greater opportunity afforded to educate a regular clinic attender to the importance of postpartum visits. Alternatively it might indicate that the same type of girl who would come regularly to the clinic would also be likely to return postpartum (i.e. that some other factor such as motivation caused both the high clinic attendance and the postpartum return). In fact, school status at registration, which is considered here to be a measure of the girls' motivation, was associated with both the number of clinic visits and the postpartum return. Therefore, drawing conclusions about directions of influence must be done with care.

The strong relationship between McCabe and clinic attendance probably was due to the influence of participation in the McCabe program. Students at McCabe were under strong pressure, from both their peers and the school personnel, to keep their clinic appointments. On leaving the Center on clinic day, they were reminded of this obligation by the staff, and the girls frequently walked over to the hospital as a group. When appointments were broken, the Young Mothers Clinic staff would call the Center's director who would talk to the girl or see that a member of the staff visited her and provided assistance and encouragement. The relationship between attendance at McCabe and appointment-keeping suggests the importance of close cooperation between the medical and the educational components of the program.

All the measures of participation in the social work part of the YMP program were associated with each other except that the quality of participation did not correlate with the number of individual interviews. Most of these variables were also associated with a high number and percentage of days at the special school. Part of the explanation for this may be causal: those who were more often at the special school were more accessible for individual interviews and were available for group sessions; however, those who participated in several program components may have done so because of their personal characteristics, such as motivation to succeed or an ability to relate to others in an institutional setting. This again illustrates the difficulty of separating the effects of the preexisting characteristics of the program participants from the effects of their participation.

Discussion

The primary measures of participation and the factors with which they were significantly associated are summarized in Table 4-12.

Motivational Factors. The two school-related measures of motivation (school status at registration and educational goals) were the most powerful overall predictors of program participation. In the YMP group, they also were significantly correlated with each other ($p < 0.001$). Girls who were still in school at registration were more likely to keep a high percentage of their clinic appointments, to return for a postpartum visit, to register for school at the McCabe Center and attend regularly, and to attend more group discussions than those who already had dropped out. Similarly, girls who planned to continue their education beyond high school were more likely to return for a postpartum visit, register for and attend McCabe often, and attend and participate actively in a large number and percentage of group discussions.

The importance of these variables even in the noneducational areas confirms the research staff's belief that something beyond desire for education was measured. Perhaps the girls saw adequate medical care and participation in the social services as a means of accomplishing their educational objectives. More likely, their school status and educational goals were two indicators of a general orientation to the future, similar to that of the middle class. If so, it would be expected that they also would have a better chance of completing education, delaying subsequent pregnancy, and reaching economic independence. Subsequent chapters will test this hypothesis and also try to determine the relative importance of the motivational factors and the participation variables per se.

The only preexisting characteristics associated with educational goals were race and religion. Those with high educational goals were more likely to be black and Protestant. School status at registration was associated with age and the number of previous pregnancies. Those who were older and had had previous pregnancies were less likely to be in school at registration.

Variations in the Program. Several variations in the program significantly affected participation, either directly or through their influence on the girl's perception of the helpfulness of her social worker. In the YMP group, obstetric care by a nurse-midwife instead of an obstetrician influenced only one aspect of participation: return for a postpartum visit. The nurse-midwives were more successful than the obstetricians in convincing their patients to return and return on time. In the absence of any negative influences, this important positive finding provides a cogent argument for the use of nurse-midwives in service programs for pregnant school-age girls. The motivational factors and socioeconomic characteristics of the nurse-midwives' and obstetricians' patients were compared to see whether the differences in participation could be due to dissimilarities between the two groups. No differences were found that would account for greater cooperation from the nurse-midwives' patients.

The social worker to whom a YMP registrant was assigned affected many measures of participation, but only in the social service area. The method of influence was twofold. First, the social workers varied in their ability to convince their clients to accept individual counseling (social work interviews) or to motivate their clients to follow their recommendations (since response to recommendations is a subjective index based on the social worker's perception of her client's activities, this variable may partly measure the social worker's feelings about her client rather than the client's actual behavior). Second, the girls' feelings about the helpfulness of their social workers were correlated with the number of interviews they had, the percentage of group sessions they attended, their response to recommendations, and the appropriateness of their use of the social work services. The characteristics of the girls assigned to each of the three social workers were compared to see if they were similar. No evidence was found to suggest that the differences in participation were due to differences in motivation or socioeconomic characteristics. If the three-month postpartum feelings about the social worker's helpfulness reflected the feelings the client had during the pregnancy, which seems to be a reasonable assumption, then the quality of the relationship between the social worker and the client was an important determinant of participation.

In the IAS group, whether a girl received her antepartum care from a private physician, or in one of the three Hartford hospitals, had an important effect on her return for a postpartum visit and her acceptance of contraception. It is easy to understand why a Roman Catholic hospital would not prescribe birth control measures; but the failure of the private physicians to assist girls in delaying pregnancy or even to motivate them to return for a postpartum visit at which contraceptives could be discussed is puzzling. Comprehensive service programs for school-age mothers should make sure that the private physicians are aware of their important responsibility in this area. The four groups in Hartford (those who obtained prenatal care from private physicians, from Hartford Hospital, from Saint Francis Hospital, and from Mount Sinai Hospital) did not differ significantly in any preexisting characteristics.

Medical Problems. Medical problems, as measured in this study, had little influence on participation. Prematurity, a factor over which a patient has no control, was expected to influence certain of the variables by reducing the girls' availability for visits, interviews, and school and group session attendance. In the YMP and Comparison groups, this hypothesis was substantiated for clinic visits. A trend in this direction was also found in the IAS group. Prematurity reduced the chance that a girl would return for a postpartum visit although the reason for this is not readily apparent. Pregnancy complications (antepartum toxemia, bleeding, and infection), the other factor outside the patient's control, had little influence on participation.

Socioeconomic Characteristics. Eleven socioeconomic characteristics were tested for their influence on fourteen measures of participation. Only 7 of the 154 possible relationships showed any significant association, and this is the number that would be expected to be found by chance at the 5% level of significance. There is, therefore, no evidence for an impact of these characteristics on participation, perhaps because of the homogeneity of the study group.

Case Studies

The relationship among these factors can perhaps be better understood by continuing the description of the four young mothers first introduced in chapter 2.

Alice. Sixteen-year-old Alice, who lived with her mother and siblings, wanted to continue her education beyond high school. Despite this high educational goal, she did not attend the special school partly because the last part of her pregnancy occurred when school was not in session. She returned to the regular school after delivery and later graduated. Alice did not attend any of the six group sessions for which she was eligible, although she was assigned to a group. She had two individual interviews with the social worker, who also made one home visit and rated her as "somewhat cooperative." She kept nine of eleven antepartum clinic visits with the staff obstetrician. She delivered a full-term female infant without complications. Six weeks after her delivery, Alice returned to the clinic, where she received contraceptive information and accepted birth control pills. She felt she could have got along just as well without her social worker.

Betty. Shortly before registering in the YMP clinic, seventeen-year-old Betty had come to New Haven with a female relative. She kept all nine antepartum clinic visits. Her social worker had two individual interviews with her and visited her home. Betty came to eight of eleven antepartum group sessions, where she was rated as a "listener." The social worker considered her "very cooperative." Betty attended McCabe. She delivered a full-term female infant and returned to clinic six weeks later, where she was given oral contraceptives. Betty found her social worker very helpful.

Cathy. Seventeen-year-old Cathy, who was from an intact family and had lived in New Haven for several years, kept nine of her ten antepartum clinic appointments. She attended McCabe 84% of the days for which she was eligible. She had two individual interviews with her social worker and no home visit was made. She attended seven of eight antepartum group sessions, where she was noted as an "active" participant. The social worker rated her as "very cooperative," but in her postpartum interview Cathy expressed the belief that she could have done just as well without a social worker. She delivered a full-term male infant, returned to the clinic on time, and was given oral contraceptives.

Diane. Seventeen-year-old Diane lived with her mother and another female relative. She kept twelve antepartum clinic appointments, even though she went to only one group session. She had five individual meetings with her social worker, and one home interview. Her social worker considered her "somewhat cooperative," and at postpartum interview Diane described the social worker as helpful. Diane delivered a full-term female infant and returned late to the clinic for the postpartum visit, where she was given oral contraceptives.

Conclusions

The amount of participation in the various programs and the factors that influence participation have been discussed at length for two reasons. First, participation in the program will be used as an important variable throughout the remaining chapters. The differences in rates of participation make it clear that a meaningful analysis cannot merely compare rates of successful outcomes *among* the participants in each of the three programs, but must also test the association between the girls' participation and their outcomes *within* each program. Because of the importance of these participation variables, several measures of participation in the same program component have been used whenever possible. Although in some later analyses it may be important to know whether the quantity of contact affected outcomes. In other instances the girl's decision about the quality of her participation may be more important.

Second, the determinants of participation have been examined to learn why the girls participated. It is easy for clinical staff to feel rebuffed by their patients or clients, or research staff to look for easy answers and fall into the trap of "blaming the victims" for underutilization of services.[8] The staffs saw the programs as reaching out to help girls in trouble and sometimes could not understand why the clients did not make more and better use of these services.

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[8] William Ryan's book of this title suggested this phrase, although usage in this section differs slightly from his (New York, Vintage Books, 1971).

This report will not find fault with clients or with personnel but will suggest ways that programs can improve participation. One such way is to accept only "good risk" girls —those whose characteristics. such as high educational goals. would probably lead to active participation. Some programs have maintained high levels of participation by making this a condition for remaining in the special program. This message was communicated either informally (as in the Webster School) or formally in the form of a contract stating mutual obligations (such as in the YMED program in Syracuse, N.Y.).

Aside from such methods of encouraging participation. the structure and operation of the program also can influence participation. This study suggests that attendance in one program component is better if it is reinforced by program staff in another component; it is one of the stronger arguments for an integrated program of services.

Convenience is another important factor in promoting program participation. The timing of the YMP clinic was designed specifically to be convenient to the girls and not conflict with other activities. In Hartford. although clinic attendance was also good. the girls often had to miss school on the days they received prenatal care because the clinics were held while the IAS school was in session.

Return for postpartum examination was influenced by the girls' rapport with the person(s) giving obstetric care. The rapport appeared to be best with the nurse-midwives in the YMP, second best where the obstetricians attempted to provide continuity of care, and least where obstetricians did not attempt to provide continuity. Young mothers also were more likely to return to clinics where contraception had been discussed and contraceptive devices were being offered.

In the YMP the social workers were able to relate more easily and naturally and have more contacts with the girls when they centered their activity at the McCabe Center, where the girls spent the most time. Also, the personality and/or professional manner of the staff members apparently affected participation. Not all professionals, or even paraprofessionals. can establish rapport easily with minority group members or persons from poverty backgrounds. The personality, age, color, and social background of staff can make a very important difference in communicating with this school-age population. Perhaps clients in the programs (or even program graduates) could detect those persons among the prospective teachers, social workers, and medical personnel to whom they could relate most easily.

Table 4-1. Number of Antepartum Visits by Program

Number of AP Visits	YMP		IAS		Comparison	
	No.	%	No.	%	No.	%
1–4	23	12.8	18	12.7	21	25.3
5–8	71	39.5	54	38.3	44	53.0
9+	86	47.7	69	48.9	18	21.7
Total	180	100.0	141[a]	100.0	83	100.0
	$X^2_4 = 20.81$			$p < 0.001$		
Avg. no. of visits	8.49		8.39		6.25	

[a] Figures on the number of antepartum visits were not available for some of those who received care from private physicians.

Table 4-2. Mean Number of Antepartum Visits by Birth Weight

Birth Weight	YMP	IAS	Comparison
Less than 1,000 gm	5.000	4.000	1.500
1,000–1,749 gm	2.750	5.000	3.500
1,750–2,499 gm	6.667	7.950	4.462
2,500 or more gm	8.849	8.559	6.833
All	8.489	8.390	6.253

Table 4-3. Start of Antepartum Care by Program

Trimester	YMP		IAS		Comparison	
	No.	%	No.	%	No.	%
First (0–13 wks)	16	9.0	22	15.0	3	3.6
Early second (14–20 wks)	54	30.0	58	39.0	15	18.1
Late second (21–26 wks)	60	33.0	35	24.0	42	50.6
Third (27+ wks)	50	28.0	33	22.0	23	27.7
Total	180	100.0	148[a]	100.0	83	100.0
Avg. no. of weeks gestation	22.4		20.3		24.0	

[a] Data not available for all who saw private physicians.

Table 4-4. Relationship between Socioeconomic Quartile[a] and Percentage of Antepartum Appointments Kept, YMP

Percentage of Appointments Kept	Socioeconomic Quartile 1 & 2 No.	1 & 2 %	3 No.	3 %	4 No.	4 %
Less than 60%	4	33.3	3	5.7	6	5.2
60 to 79%	2	16.7	12	22.6	18	15.7
80% or more	6	50.0	38	71.7	91	79.1
Total	12	100.0	53	100.0	115	100.0

$X^2_4 = 14.492$ $p = 0.007$

[a] For an explanation of socioeconomic quartile see chapter 3.

Table 4-5. Return for Postpartum Visit by Program

Return	YMP No.	YMP %	IAS No.	IAS %	Comparison No.	Comparison %
On time (4–8 wks p.p.)	162	90.0	104	69.8	55	66.3
Late visit	10	5.6	13	8.7	7	8.4
No visit	8	4.4	32	21.5	21	25.3
Total with information	180	100.0	149[a]	100.0	83	100.0

$X^2_4 = 35.574$ $p < 0.001$

[a] Data not available for all who saw private physicians.

Table 4-6. Relationship between Prematurity and Return for Postpartum Visit, YMP

	Birth Status			
	Premature		Full Term	
Return	No.	%	No.	%
On time	18	78.3	144	91.7
Late visit	1	4.4	9	5.7
No visit	4	17.4	4	2.6
Total	23	100.0	157	100.0

$X^2_4 = 10.418$ $p = 0.006$

Table 4-7. Relationship of Source of Care to Time of Postpartum Visit, IAS

	Private Care		Hartford Hospital		Mount Sinai Hospital		Saint Francis Hospital	
Time	No.	%	No.	%	No.	%	No.	%
On time	10	50.0	27	77.1	22	84.6	44	65.7
Late visit	3	15.0	1	2.9	3	11.5	6	9.0
No visit	7	35.0	7	20.0	1	3.8	17	25.4
Total with information	20	100.0	35	100.0	26	100.0	67	100.0

$X^2_6 = 9.648$ p not significant

Table 4-8. Prescription of Birth Control Measure by Program

	YMP		IAS		Comparison	
Birth Control	No.	%	No.	%	No.	%
Prescribed	146	81.1	54	37.0	2	2.4
Referred	2	1.1	1	0.7	2	2.4
None prescribed	24	13.3	64	44.5	58	69.9
No visit	8	4.4	29	19.9	21	25.3
Total with information	180	100.0	146	100.0	83	100.0

$X^2_6 = 157.925$ $p < 0.001$

Table 4-9. Relationship of Source of Care to Prescription of Birth Control Measure, IAS

	Source of Prenatal Care							
	Private Care		Hartford Hospital		Mount Sinai Hospital		Saint Francis Hospital	
Birth Control	No.	%	No.	%	No.	%	No.	%
Prescribed	7	35.0	25	71.4	22	84.6	0	–
Referred	1	5.0	0	–	0	–	0	–
None prescribed	5	25.0	2	5.7	2	7.7	55	82.1
No visit	7	35.0	8	22.9	2	7.7	12	17.9
Total with information	20	100.0	35	100.0	26	100.0	67	100.0

$X^2_9 = 107.58$ $p < 0.001$

Table 4-10. Relationship between Return for Postpartum Visit and Prescription of Birth Control Measure, IAS

	Private Care	Hartford Hospital	Mount Sinai Hospital	Saint Francis Hospital
Number who returned	13	24	27	55
Number receiving birth control measure	7 (54%)	22 (92%)	25 (93%)	0 (0%)

Table 4-11. Helpfulness of Social Worker and Average Number of Individual Social Work Interviews per Client, YMP

	Social Worker		
	A (N = 88)	B (N = 30)	C (N = 54)
Average number interviews per client	3.1	3.9	5.8
Percentage with two or more interviews	49%	83%	100%
Helpfulness scale			
Definitely helpful	37.2	53.6	57.4
Mixed reaction	22.1	17.9	24.1
Not helpful	40.7	28.6	18.5

Table 4-12. Factors Influencing Participation Variables

Measure of Participation	Factors Associated with Participation	Presumed Impact
	A. Medical	
Number of antepartum visits	1. Early registration for care	positive
	2. High percent of antepartum clinic visits kept	positive
	3. Prematurity	negative
	4. Participation in special school	positive
	5. Assignment to group session	positive
Percentage of antepartum appointments kept	1. Number of antepartum visits kept	positive
	2. In school at registration	positive
	3. High educational goals	positive
	4. Lowest socioeconomic quartile	positive
Return for postpartum clinic visit	1. Served by nurse-midwife	positive
	2. Source of antepartum care (IAS); private care and Catholic hospital	negative
	3. In school at registration	positive
	4. High educational goals	positive
	5. Premature delivery	negative
	6. Contraception available	positive
Prescription of contraceptives at postpartum visit	1. Source of antepartum care (IAS); private care and Catholic hospital	negative
	B. Education	
Registration in the special school	1. In school at registration	strongly positive
	2. High educational goals	positive
	3. Age	negative
	4. Previous pregnancies[a]	negative
Number of days attended McCabe	1. High percent of possible days attended	positive
	2. High educational goals	positive
	3. Client on welfare	negative
Percentage of possible days attended McCabe	1. High educational goals	positive
	2. In school at registration	positive
	3. Client on welfare	negative

	C. Social Service	
Number of individual interviews	1. Medical complications	positive
	2. Social worker assigned	–
	3. Social worker seen as helpful[b]	positive
	4. Location of interviews	more when held at special school
Number of group sessions attended	1. Assignment to group sessions	all who attended were assigned
	2. Staff encouragement	(?) positive
	3. Social worker seen as helpful[b]	positive
	4. High educational goals	positive
	5. In school at registration	positive
Percentage of possible group sessions attended	1. High educational goals	positive
	2. Social worker seen as helpful	positive
Active participation in group sessions	1. High educational goals	positive
	2. Older age	positive
Appropriate use of social worker	1. Short residence in New Haven	positive
	2. Social worker seen as helpful[b]	positive
	3. High attendance at individual and group sessions	positive
Cooperative response to recommendations	1. Social worker assigned	–
	2. Social worker seen as helpful[b]	positive
	3. Client on welfare	positive

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[a] Also correlated with age.

[b] Measured at three months postpartum; direction of cause not clear.

5 The Health of the Young Mothers and Their Infants

Current information regarding the dangers of early pregnancy to both mother and child suggests that the increased hazards, at least from the biological viewpoint, are largely confined to the younger members of the school-age group (under age 16). Moreover, the excess risk may be due not only to biological factors such as physical and hormonal immaturity but also to the social, economic, and psychological factors that are often associated with school-age pregnancy—factors which special programs for this group might be able to affect favorably.

The theory behind the medical component of the Young Mothers Program was that young mothers-to-be need obstetric care tailored to their special needs, including personalized care with as much continuity as possible, in an attractive, nonjudgmental, and accessible environment. Such a program presumably would promote earlier and more consistent seeking of prenatal care and better rapport with the clinicians. If the girls were relaxed and cooperative, it might result in better health for them and their children. In the Inter-Agency Services program the medical component was not integrated into the overall program and, although care was expected to be of high quality since special services were available to high-risk mothers at the obstetric clinics of the three hospitals in Hartford, continuity of care was lacking.

Indicators of Maternal Health

The adverse maternal health conditions most commonly found in school-age mothers are anemia, toxemia, excess weight gain, difficulties in labor and delivery associated with a small, immature pelvis (dystocia), bleeding, and infection.

During pregnancy. *Anemia:* More than half the girls in all three study groups were anemic during their pregnancy (Table 5-1).[1] Anemia usually was diagnosed on the basis of the first hematocrit recorded during the pregnancy, and almost all hematocrits reverted to normal levels during the pregnancy after treatment for iron deficiency. No difference was noted between the young mothers (15 and under) and older mothers (16–18 at delivery) in the proportion with low hematocrits.

Aside from its intrinsic importance (an anemic subject may not feel well or learn well, and be more susceptible to infections), the high prevalence of anemia suggests that the large majority of these girls were malnourished, which could have an important negative impact upon the health of mother and child (National Academy of Sciences, 1970).

Toxemia: Although there is no agreement about its cause, the abnormality called toxemia or preeclampsia complicates pregnancy at any age and is a particular hazard to the young and/or black mother. Its association with youth and poverty is consistent with the theory that much toxemia results from nutritional deficiency (Brewer, 1972). The frequency with which it is reported varies greatly with the criteria chosen, making it very difficult to interpret the literature on the subject. In this study the criteria recommended by Eastman and Hellman (1966) were rigidly applied.[2]

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[1] Since some dilution of the blood occurs during pregnancy, the girls were not considered anemic if the hematocrit was 35% or above. Anemia was diagnosed as mild when the hematocrit was between 30 and 34%, moderate at 25 to 29%, and severe when it was below 25%.

Based on the Eastman and Hellman criteria, the toxemia rates for the YMP and IAS groups were similar (13.9% and 15.1%) and significantly lower than the rates observed in the Comparison group (27.7%) (Table 5-1). This is especially striking since the Comparison group was slightly older, and toxemia is more prevalent among younger mothers. In all three study groups, toxemia appeared to be more prevalent in the younger girls, but the differences were statistically significant only in the YMP group where 21% of those 15 and under and 10% of those 16 to 18 years of age had toxemia.

The rates for the groups served by the special programs were higher than many reported in the literature, where the criteria were not usually clearly stated. Even in the study groups, if only recorded clinical diagnoses are considered, 11.7% of the YMP, 6.3% of the IAS, and 18.1% of the Comparison group had toxemia (Table 5-1). Apparently the obstetricians in New Haven adhered more closely than those in Hartford to the Eastman and Hellman criteria.

Weight gain: Greater than average weight gain during pregnancy has not been shown definitely to have a negative influence on the outcome of pregnancy. It may be associated with poor outcome, however, if it is due to fluid accumulation from toxemia or to poor nutrition (e.g. a high-starch, low-protein diet). Conversely, very small gains in weight were associated with poor obstetric outcome both in this study and in others (Niswander et al., 1969; National Academy of Sciences, 1970). However, since a premature termination of pregnancy would give the mother less time to gain weight, the cause-and-effect sequence is unclear. Minimal weight gain also might indicate poor nutrition, which would have a negative impact upon pregnancy. Dietary restrictions should not be imposed on growing, pregnant adolescents unless absolutely necessary, and then only with extreme care to ensure adequate proteins, vitamins, and minerals in the diet.

Since adolescence is a period of growth, school-age girls would be expected to gain weight even when not pregnant. Almost half the subjects in each of the study groups gained more than 25 pounds during the course of the pregnancy, based on the girl's own estimate of her prepregnant weight (Table 5-1). To adjust for normal adolescent growth during the nine months of pregnancy, the following amounts were subtracted from the uncorrected weight gain to obtain a corrected gain due to the pregnancy: ages 11–13, eight pounds; age 14, seven pounds; ages 15 and 16, five pounds; and age 17, three pounds (after Hassan and Falls, 1964).

After this correction a smaller proportion of girls in each study group gained more than 25 pounds; for example, in the youngest group (the YMP), where the most active growth would have occurred, the proportion in excess of that figure dropped from 46 to 32%. A few girls actually *lost* weight on this basis, and more than 10% of each group showed either a loss of weight or a gain of less than nine pounds.

Pelvic infection during pregnancy: There was only one case of infected fetal membranes (amnionitis) among all three study groups. This occurred in a YMP girl whose membranes ruptured without the onset of labor. She did not recognize the significance of this mishap, and when she contacted her obstetrician more than a day later, the baby was almost dead.

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[2] For these criteria see Appendix F.

Another significant antepartum infection was gonorrhea. It was diagnosed in over 7% of the YMP mothers during pregnancy, which was much higher than the diagnosed rate in the other two study samples. Part of the differences observed may have been real. However, the rate of gonorrhea was considerably higher in the late 1960s than during the time the Comparison group was studied, since gonorrhea has been increasing about 15% per year during the past decade. Moreover, the New Haven area was reporting the highest gonorrhea rates in the state, and during much of the study period an epidemic was occurring in the area. Aggressive casefinding also may have had an effect on the percentage; for example, since 1967 all pregnant women in the Y-NHH clinics have received gonorrhea cultures on the improved Thayer-Martin medium which was not true in the other two study groups. All diagnosed cases were treated adequately, and there was no association between infection with gonorrhea and either postpartum infection or poor infant health. In the absence of treatment, however, infection with gonorrhea appears to increase the risk of perinatal mortality (Sarrel and Pruett, 1968).

During Labor, Delivery, and Immediate Postpartum Period. *Labor time:* One danger of pregnancy in adolescents is an immature pelvis with an opening too small to permit a normal or large infant to pass through with ease (or at all). In this situation, unless there is appropriate obstetric intervention, labor time can be prolonged with adverse effects on both mother and child. Experts disagree on the criteria for excessive labor time. Some consider 24 hours' total labor to be the upper limit of normality (Hassan and Falls, 1964), and others feel that any labor in excess of 20 hours' duration is prolonged for an adolescent (Semmens and Lamers, 1968). Approximately 4% of all mothers in all three groups had prolonged labor by the latter criterion. These data compare favorably with reports in the literature on teenage pregnancy (Israel and Woutersz, 1963).

At the other end of the scale, Semmens and Lamers (1968) believe that adolescents are prone to precipitate labor (less than 3 hours' total labor time), which may be associated with complications. By this criterion, 2.2% of the YMP group, 6.6% of the IAS group, and 1.2% of the Comparison group had precipitate labor. These figures are lower than those reported by Semmens and Lamers and are within the limits of normal as proposed by Conger and Randall (1957).

Operative delivery: The rate of Caesarean section was somewhat higher in both special programs (3%) than in the Comparison group (1%), although this difference may have been due to chance. No differences were found by age. The overall rates of operative delivery (use of mid-forceps or Caesarean section) were similar between the YMP and Comparison groups and somewhat lower in Hartford. The excess in operative delivery among the groups served in the university hospital as compared with those served by the three nonuniversity hospitals in Hartford may be related to the greater use of regional anesthesia in the university hospital (which may slow labor and require forceps intervention), to varying styles of practice, to differences in definition of mid-forceps application, or to the incidence of conditions requiring intervention. The figures reported for Caesarean section and mid-forceps delivery are similar to those reported by Semmens and Lamers (1968) for over 20,000 teenage deliveries in the military, and by Israel and Woutersz (1963) for almost 4,000 teenagers.

Vaginal bleeding: High-quality obstetric care should reduce the incidence of vaginal bleeding both before and after delivery but cannot eliminate bleeding altogether. About 3% of the mothers in both special programs had some bleeding before delivery, and about 2% had excessive bleeding either during or immediately after delivery. These figures appear to be comparable to or lower than most reports in the literature, and are similar to those in the Comparison group. Age did not influence the risk of bleeding.

Puerperal infection: The rate of clearly diagnosed postpartum infection was higher than expected for all three study groups, especially in the YMP where the proportion was 11% (Table 5-1). Most of the infections were mild, but still this is a surprising rate, for which no explanation is available. The difference between the rates for the two groups at the university hospital and the Hartford group may be real, or again it may be due to differences in diagnostic criteria from university to nonuniversity hospitals.

Postpartum infection was significantly associated with prematurity in the YMP ($p < 0.001$), which suggests that many of these girls may have been infected before delivery. This finding is consistent with data reported by Naeye and Blanc (1970).

Summary. Three general conclusions can be drawn from the data on maternal health (Table 5-2). First, no striking differences can be found between the health of the mothers in the two special programs and the health of the mothers in the Comparison group. Thus one of the study hypotheses, that there would be a unique benefit to maternal health from the special programs, was not confirmed. Although the mothers in the special programs had lower rates of toxemia than those in the Comparison group, the rates were still not particularly low, and prenatal care has not been shown to reduce the incidence of toxemia although it does appear to reduce its complications. Superiority on a single indicator is not sufficient to support the original hypothesis.

Second, with the exception of toxemia, there were no striking differences in risk between the younger mothers (under 16 at delivery) and the older ones (16–18 at delivery). These data suggest that, at least in the presence of good care, the obstetric risks of very young mothers can be minimized for the initial pregnancy. The results, however, may be difficult to maintain for subsequent pregnancies in the presence of rapid reconceptions among young mothers, as will be seen.

Third, the maternal health data reported here are similar to those reported elsewhere for young mothers receiving adequate care. The special programs and the regular obstetric clinic appeared to provide good care but could not be shown to have a clear advantage over the results achieved in other centers providing high-quality care.

Indicators of Perinatal Health of Infants

Much medical concern centers about the health of infants born to school-age mothers. Not only is the risk of loss higher in these infants, but also the increased rates of prematurity and other complications among those who survive increase the danger that these infants will have permanent physical and/or mental damage (Birch and Gussow, 1970).

Single Indicators. The traditional measures of infant health have been the infant's survival (born dead = stillbirth; born alive but died in the first week = hebdomadal death); the infant's maturity, usually measured by birth weight (under 2,500 grams is considered premature and under 1,000 grams, immature); and the Apgar score, which measures the infant's condition immediately after birth. A score of 0 at five minutes after birth indicates death, 1–3 severe distress, 4–6 some distress, and above 7 good condition (Apgar et al., 1958).

On all these indicators the YMP infants appeared more healthy at birth than the IAS infants, who in turn appeared more healthy than those in the Comparison group. No firm conclusions could be drawn from these individual comparisons, however, because none of the individual comparisons was statistically significant (Table 5-3).

Obstetric Outcome Score. Since no single indicator contained all the relevant information, an alternative method of analysis was devised which enabled all the data to be used in one analysis and took into account the fact that the three separate indicators were partially intercorrelated and partially independent. (For a detailed discussion of this method see Jekel et al., 1972.)

The scoring method is based on the joint distribution of the three indicators discussed above.[3] It assigns different penalty scores to each outcome and assigns different weights to the outcomes when they occur separately. Each pregnancy is given 100 points, and penalty points are subtracted from that score according to the schedule in Table 5-4.

Congenital anomalies are excluded because of the difficulty in relating them to the quality of prenatal care. Birth injuries also are excluded because none was serious in the study groups. The resulting penalty scores for each delivery are averaged for each group being compared, and the resulting average penalty scores are either compared directly or subtracted from 100 to give a percentage success rating. Statistical tests of significance can be performed on the resulting averages to determine whether the groups differ significantly from one another, although the meaning of the results depends upon whether the penalty scores assigned are valid (Table 5-5).

The average score of the YMP pregnancies was 95.4, which was higher than that of either the Comparison group (89.5) or the IAS group (92.8). Conversely, the YMP had an average penalty score of 4.6%, the IAS 7.2%, and the Comparison group 10.5%. The YMP score was significantly higher than the Comparison group score ($p < 0.01$), but not significantly higher than the score of the IAS, and the IAS score was not significantly higher than the Comparison group score. If one looks only at the healthy infants at birth, 86% of the YMP pregnancies resulted in completely healthy babies, compared to 80% of the IAS and 75% of the Comparison group pregnancies.

Summary. These data support the original hypothesis that the YMP infants would be more healthy at birth than those of the Comparison group. Moreover, the age difference between these two groups of mothers should, if anything, have favored the Comparison group. The IAS program, with a medical component that was less well integrated into the overall program, gave results between the other two, as predicted in the hypothesis. Although the special program may have been responsible for these observed differences, progress in the care of newborns in the four years between the Comparison and special program groups may explain some of the differences.

Factors Associated with Maternal and Child Health (YMP Only)

Why were the infants of mothers enrolled in the special program with integrated medical services (YMP) more healthy during the perinatal period than the infants of mothers in the Comparison group, and why did the YMP mothers have a lower incidence of toxemia? The criteria for admission into the study groups were the same, and demographically the mothers were very similar except for age, where the somewhat older Comparison group mothers should have had an advantage.

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[3] Joint distribution implies taking into account whether or not they occur together in the same person.

Preexisting Characteristics. *Toxemia:* Within each study group the younger mothers had higher rates of toxemia. None of the other preexisting characteristics was associated with toxemia.

Weight gain: Several preexisting characteristics were associated with weight gain. Those who gained more than eight pounds were more likely to be in the older group (16 or older) and in the appropriate grade in school. By contrast, those who gained less than nine pounds tended to be younger, behind grade in school, and to have a greater incidence of venereal disease. Girls who gained less weight seemed to be suffering from both physical and emotional malnutrition. These findings may also be related to the fact that those with low weight gain had poorer obstetric outcomes.

Bleeding and infection: The twelve mothers for whom the index pregnancy (the one that brought them into the study sample) was not their first pregnancy had a significantly greater risk of bleeding ($p < 0.01$) and puerperal infection ($p < 0.05$). Since both of these factors were associated with poor obstetric outcome, it is not surprising that parity was also significantly associated with obstetric outcome ($p < 0.01$). Infants whose mothers had experienced previous pregnancies were more likely to be premature and to die in the perinatal period.

Obstetric outcome: Although many studies have reported an increased perinatal risk for small mothers and their infants (National Academy of Sciences, 1970), no association was found between height or prepregnant weight and obstetric outcome. High educational goals, however, were associated with high obstetric outcome scores ($p < 0.01$).

Program Participation. The health of the infant at birth was associated with school attendance: those attending the McCabe Center had more healthy infants ($p < 0.01$). This may be an artifact, however, since those girls with previous infants had poorer obstetric scores and also were less likely to attend McCabe Center. With the exception of the relationship between the number of antepartum clinic visits and outcomes which were shown in the previous chapter to be effect and cause, this was the only significant relationship between maternal and infant health and program participation.

In Hartford the source of care[4] did not appear to influence maternal health or weight gain. In infant health there was no association between birthweight or Apgar score and the source of care. All three stillbirths, however, occurred to patients cared for by private physicians, who also tended to perform more Caesarian sections but reported fewer cases of toxemia.

Use of Nurse-Midwives. During the last two-thirds of the study period, three nurse-midwives provided primary care in the Young Mothers Clinic. Patients were assigned randomly to the obstetrician and the nurse-midwives. The 73 patients served by the latter did not differ significantly from those served by the former on any preexisting characteristics except educational goals; the nurse-midwives' group had somewhat lower educational goals.

The patients cared for by the nurse-midwives did as well as those cared for by the obstetrician on every measure of maternal and infant health. The average obstetric outcome score for the nurse-midwives' patients was identical with that of the obstetricians' patients. These findings suggest that the nurse-midwives' patients received good technical care. In addition, the rapport between the young mothers and the nurse-midwives may have been even better than that with the obstetricians. For example, all the nurse-midwives' patients returned for the postpartum checkup on time, whereas 8% of the obstetrician's patients were late and 6% did not return at all ($p < 0.02$). Moreover, at subsequent home interviews, a higher proportion of the young mothers mentioned the nurse-midwife (10%) than mentioned the obstetrician (6%) as the person in the program to whom they felt closest despite the fact that only one-third were served by nurse-midwives. Comprehensive service programs for young mothers should consider utilizing nurse-midwives in a clinical role or educational role, or both.

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[4] The obstetric clinic of one of the three Hartford hospitals or private care.

Perinatal Health of Subsequent Infants (YMP Only)

The findings reported so far support the hypothesis that infants born to mothers who participated in the special program with integrated medical services (YMP) would be more healthy at birth than those in a Comparison group of mothers receiving care in a traditional outpatient clinic of a university hospital. How long, however, did the program effect last? Were subsequent babies healthy also? The service personnel in the special programs hoped that a strong, positive intervention during the first pregnancy would have an extended impact on health, education, family life, and child care.

Pregnancy Terminations. In order to obtain some estimate of the long-term impact of a comprehensive program, all known subsequent pregnancy terminations experienced by the 180 mothers in the YMP study population before February 1, 1972, were studied to determine the health of the infants produced.[5] The primary data sources were the hospital, clinic, and emergency room records of the Yale-New Haven Hospital. These data were supplemented by records from the other hospital in the New Haven metropolitan area and from the clinicians' rating forms, school records, and postpartum interviews. All the index infants and all but two of the 103 subsequent infants were delivered at the Y-NHH. Therefore, the primary sources of data were comparable for almost all the deliveries.

By the end of the two- to four-year follow-up period, 79 of the 180 mothers in the YMP study population had delivered one or more subsequent infants of twenty weeks' gestation or more, totaling 103 infants. Several mothers were known to be pregnant at the end of the follow-up period; in addition, during that period there were 21 known spontaneous abortions (miscarriages), 21 medically induced abortions, and one self-induced abortion in the study group. The large number of medically induced abortions suggests that many teenagers will choose to terminate a subsequent pregnancy when the alternative of abortion is legal and available.

Comparison of Health at Birth: Index and Subsequent Infants. The most striking finding was the significantly higher risk of perinatal mortality and prematurity among the 103 subsequent infants in comparison to the 180 index infants.

Survival. Nine of the 103 subsequent infants died in the perinatal period in comparison to two of the 180 index infants, giving the subsequent infants a risk eight times that of the index infants (Table 5-6).

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[5] The study design called for follow-up of each YMP and IAS participant to terminate 24 months after delivery. Because of the wide interest expressed in the problem of subsequent pregnancies, follow-up in this area was continued for a longer time.

The nine infants who died during the perinatal period were delivered by eight different mothers.[6] (A difference so large would occur by chance in less than 1/100.) Clearly, subsequent infants, most of whom were born within two years after an initial school-age pregnancy, had a significantly higher risk of perinatal death than their older siblings.

Prematurity: Twenty-eight of the subsequent infants (27%) weighed under 2,500 grams (Table 5-6). This is over twice the proportion of prematures in the index group and is even higher than the 23% premature rate reported by Waters (1969) for subsequent deliveries to young mothers. Low birth weight is associated with, and is presumably a causative factor in, most deaths around the time of birth. All nine of the infants who died during the perinatal period weighed less than 2,500 grams. Seven were between 580 and 2,000 grams, and two weighed more than 2,000 grams.

Apgar score: The subsequent infants had lower Apgar scores than the index infants although the differences did not reach the level of significance. Apgar scores tend to be low in the presence of low birth weight.

Factors Associated with Increased Risk. Two facts are apparent. First, the study population produced fewer healthy infants in subsequent deliveries than in index deliveries, despite the fact that the mothers were older. Second, prematurity was the most important immediate cause of the high perinatal death rate.

Parity: The number of previous deliveries was strongly associated with survival (Table 5-7). Among all the index and subsequent deliveries, first births had a risk of perinatal death of less than 1%, second births 7%, and third births 14%. The corresponding rates of prematurity are 11%, 21%, and 43%. (Not all index pregnancies were first pregnancies: nine were second and three were third.)

Delivery-to-conception interval: In order for a woman to have several pregnancies in her teens, conceptions must occur at short intervals.[7] Prematurity and perinatal death might result if the young mother did not have enough time to prepare physiologically and nutritionally for the new pregnancy. The number of months between the actual date of the previous delivery and the estimated date of conception time was calculated for the 103 subsequent deliveries. If an infant was premature, the approximate gestation interval was calculated from the birth weight. Contrary to expectation, for the 103 subsequent infants no significant difference could be found in delivery—conception interval between full-term live infants and those who were premature or who died at birth or within one week (Table 5-8).

Prenatal care: The mothers who had subsequent infants sought less care for that pregnancy than for the initial one. During the index pregnancy, all members of the study group came to the clinic at least once, and the average was 7.7 visits. In contrast, during the subsequent pregnancy seven (6.8%) sought no prenatal care and the average number of visits was only 5.1. Of the nine mothers whose infants died in the perinatal period, two never visited the clinic, five visited only once, one three times, and for one the number of prenatal visits was unknown. Some of the deaths might have been prevented had the mothers sought early and regular care, but this study can offer no proof of this belief. Perhaps the presence of the index child made clinic attendance more difficult.

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[6] One mother delivered two of these infants in separate pregnancies.

[7] All but two of the 103 subsequent deliveries were to women who were still teenagers.

In both the index and subsequent pregnancies, a strong relationship was demonstrated between the number of prenatal visits and the outcome of the delivery, i.e. having fewer prenatal visits with premature birth or perinatal death. This finding, however, can be at least partly explained by the fact that prematurity reduces the number of prenatal visits a women can make.

The inadequacy of prenatal care for subsequent pregnancies should be considered carefully by program planners. Perhaps the young mothers felt guilty about returning for care to a program which had stressed contraception. Staff who encouraged the use of contraceptive methods may not have felt able at the same time to face the possibility of failure of family planning and to educate the young mother to return promptly for care if she did conceive again. Is it really possible to say with conviction, "You *can* postpone the next baby if you want to," and at the same time say, "If you do become pregnant again, come back to see us early"? Some of the mothers felt keenly the clinic expectation that the contraceptive measures would be effective, because more than one stated at interviews one to two years later that they had not felt right about going back to the YMP clinic for care in another pregnancy. This would suggest that a long-term relationship with a service person is needed, one in which encouragement to use contraceptives and encouragement to seek care in the event of failure are both possible.

Differences between mothers: Did the mothers who delivered again differ from those who did not in important ways that may have influenced obstetric outcomes? No differences were found between the two groups of mothers in any preexisting characteristic, but mothers who delivered again participated less in the YMP program during the index pregnancy than those who did not give birth again. The mothers with subsequent infants made fewer prenatal visits during the index pregnancy, although this did not appear to influence adversely the obstetric outcome for the index pregnancy. The average number of clinic visits during the index pregnancy for the subsequent delivery group was 7.7, compared to 9.1 visits for those who did not have subsequent infants ($p < 0.01$). Mothers who had subsequent children came for care about 1.5 weeks later in gestation and kept a lower percentage of clinic appointments during the index pregnancy. Also, although an equal proportion of both groups attended the McCabe Center, the mothers who later had subsequent infants attended a lower percentage of the days for which they were eligible. They also participated less actively in the social-work group sessions.

These differences in participation during the index pregnancy may reflect subtle differences in social, psychological, and/or environmental factors which affected the outcome of subsequent pregnancies either directly or through reduced prenatal care.

Since previous studies (Nesbitt and Aubry, 1969) have shown that those with a poor obstetric history are at high risk during subsequent deliveries, the outcome of the index delivery was reviewed to determine whether the results of later deliveries might have reflected a selection process whereby the mothers with poor index outcomes were those who had subsequent infants. When the obstetric outcomes for the index delivery were compared for the 79 mothers who had other infants and for the 101 mothers who did not, no significant difference was found (Table 5-9). Nor did the two groups differ on any other index of maternal and child health during the index pregnancy. Therefore, those mothers who had subsequent infants were biologically as able to produce healthy children as those who did not deliver again.

Mothers having subsequent infants were less likely to be in school or employed than those who did not. These data may indicate motivational differences between the two groups or merely reflect the fact that pregnancy makes attending school and working difficult, especially in the presence of a small child, or suggest that those who are not busy are more likely to become pregnant.

Conclusions. Subsequent infants born to school-age mothers within two to four years of their participation in the YMP program were found to be at high risk for prematurity and perinatal death. Three characteristics of these mothers were associated with prematurity: high parity, little prenatal care, and a low rate of participation in the special program during the earlier pregnancy. The strongest association was with parity, despite the fact that second infants born to women in their twenties are at lower risk than first infants. Apparently the increased risk in subsequent pregnancies results from the interaction between age and parity. The mechanism of this interaction may lie in physiological factors such as nutritional deficit and/or hormonal immaturity, or to social and environmental factors such as poverty and inadequate health care. Infant health, therefore, would seem to be a clear medical justification for delaying subsequent pregnancies.

During the past decade, special interest has been focused on obstetric risk to the very young mother. Less attention has been directed to her subsequent pregnancies, perhaps because of the assumption that the added year or two between them would reduce the risk. Also, since the mother is somewhat older at a subsequent pregnancy she is less likely to utilize special services with an educational emphasis. The finding of increased risk in subsequent pregnancies gives special urgency to the provision of family planning services to adolescents, and, if confirmed by other studies, indicates that more attention must be given to the care and study of subsequent pregnancies among teenage girls.

Summary

1. In terms of maternal health during pregnancy and delivery, two groups of mothers served by comprehensive programs for school-age mothers differed from the Comparison group of similar mothers, who received traditional obstetric care, only in the incidence of toxemia.

2. The infants of mothers participating in the medically oriented comprehensive program (YMP) were significantly healthier during the perinatal period than were infants of similar mothers in the Comparison group who attended the obstetric outpatient clinic at the same hospital four years earlier. The infants of mothers participating in a comprehensive program which did not include the close integration of medical services (IAS) could not be shown to be significantly more healthy than the infants of mothers served by the traditional obstetric clinic.

3. The reasons for the better health of the infants in the medically oriented special program (YMP) could not be shown to be due to the volume of prenatal care, to any demographic variable other than parity, or to the antepartum height or weight of the young mothers. Poor obstetric outcomes were related to maternal infection, toxemia, vaginal bleeding, and weight gain (those with small amounts of weight gain had poorer outcome).

4. Mothers who received care from nurse-midwives scored as well on indicators of maternal and infant health as did mothers served by obstetricians.

5. Subsequent infants born to mothers who participated in the medically oriented comprehensive program (YMP) had very high prematurity and perinatal mortality rates. The risk of poor outcome rose as parity increased and the number of prenatal clinic

visits decreased. Greater efforts are needed to assist young mothers to avoid subsequent pregnancies during their teens and to give them early and adequate care if they do become pregnant.

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Table 5-1. Number and Proportion of Various Indicators of Maternal Ill Health during Labor and Delivery by Program

	YMP (N = 180)		IAS (N = 160)		Comparison (N = 83)	
	No.	%	No.	%	No.	%
Prenatal Period						
Anemia						
None	45	25.1[a]	52	36.6[a]	14	16.9
Mild	110	61.5	78	54.9	55	66.3
Moderate	22	12.3	12	8.4	14	16.9
Severe	2	1.1	0	–	0	–
Not known	(1)		(18)			
Toxemia, Eastman criteria						
None	155	86.1	135	84.9[a]	60	72.3
Mild	20	11.1	21	13.2	18	21.7
Severe	5	2.8	3	1.9	5	6.0
Not known			(1)			
Toxemia, diagnosed clinically	21	11.7	10	6.3	15	18.1
Weight gain, total						
Loss	4	2.2	2	1.4[a]	3	3.6
0–8 lbs	8	4.4	6	4.1	3	3.6
9–25 lbs	86	47.8	66	45.2	38	45.8
26 or more lbs	82	45.5	72	49.4	39	47.0
Not known			(14)			
Weight gain, corrected						
Loss	8	4.5[a]	4	2.7[a]	4	4.8
0–8 lbs	22	12.3	15	10.3	8	9.6
9–25 lbs	91	50.8	73	50.0	44	53.0
26 or more lbs	58	32.4	54	37.0	27	32.5
Not known	(1)		(14)			
Labor and Delivery						
Labor time						
Normal	169	94.3[a]	136	90.1[a]	78	94.0
Prolonged (> 20 hrs)	6	3.5	5	3.3	4	4.8
Precipitate (< 3 hrs)	4	2.2	10	6.6	1	1.2
Not known	(1)		(9)			
Operative delivery						
None	144	80.0	138	86.3	67	80.7
Mid forceps	30	16.7	17	10.6	15	18.1
Caesarian section	6	3.3	5	3.1	1	1.2

	YMP (N = 180)		IAS (N = 160)		Comparison (N = 83)	
	No.	%	No.	%	No.	%
Vaginal bleeding						
None	172	95.6	152	95.0	78	94.0
Antepartum	5	2.8	5	3.1	3	3.6
Intra- and postpartum	3	1.7	3	1.9	2	2.4
Diagnosed puerperal infection						
None	160	89.4[a]	153	95.6	76	93.8[a]
Present	19	10.6	7	4.4	5	6.2
Not known	(1)				(2)	

[a]Percentages based on those for whom complete data were available.

Table 5-2. Summary of Indicators of Maternal Health

Condition	Differences among Study Groups	Differences, under 16 and 16–18 Years at Delivery	Comparison with Reports in Literature
Anemia	Not significant	Not significant	Similar findings in other studies of low-income adolescent females
Toxemia	YMP and IAS significantly lower than Comparison group	Younger had higher rates in YMP; trend in others	Difficult to compare due to unclear criteria
Weight gain	Not significant	Not significant	Appears comparable, but data scanty
Labor time	Not significant	Not significant	Comparable to or better than most reports
Operative delivery	Not significant	Not significant	Comparable to most
Vaginal bleeding	Not significant	Not significant	Similar to other reports (are criteria comparable?)
Diagnosed puerperal infection	IAS lower than YMP and Comparison group; possibly due to reporting differences	Not significant	Higher than many reports

Table 5-3. Infant Health at Birth by Program

	YMP		IAS		Comparison	
	No.	%	No.	%	No.	%
Survival						
Late fetal deaths	0	0.0	3	1.9	3	3.6
Hebdomadal deaths	2	1.1	2	1.3	2	2.4
Living	178	98.9	155	96.9	78	94.0
Total	180	100.0	160	100.0	83	100.0
Prematurity						
999 gm or less	2	1.1	2	1.3	2	2.4
1,000 to 2,499 gm	19	10.6	23	14.4	15	18.1
2,500+ gm	159	88.3	135	84.4	66	79.5
Total	180	100.0	160	100.0	83	100.0
Apga [illegible] ores (5 [illegible]						
0–3	4	2.2	5	3.1	5	6.0
4–6	6	3.3	9	5.6	4	4.8
7–10	170	94.4	146	91.2	74	89.1
Total	180	100.0	160	100.0	83	100.0

Table 5-4. Schedule of Assignment of Infant Health Penalty Points in Comparing YMP, IAS, and Comparison Programs

Category	Penalty Points	Situation in Which Penalty Points Apply
Late fetal death	100	Whenever present, others not counted
Hebdomadal death	75	Whenever present, others not counted
Infant survives first week		
Immature (birth weight <1,000 gm)	50	
Very low Apgar (0–3) (5 min.)	50	Not counted if infant dies or was immature
Premature (birth weight 1,000 to 2,499 gm)	25	Not counted if more severe penalty applies
Low Apgar (4–6)	25	Not counted if prematurity or more severe penalty was present
No defect	0	

Table 5-5. Penalty Points and Average Score by Program

Category	Penalty Points per Infant	YMP		IAS		Comparison	
		No.	Penalty	No.	Penalty	No.	Penalty
Fetal death	100	0	0	3	300	3	300
Hebdomadal death							
$A_2B_1C_1$	75	1	75	1	75	1	75
$A_2B_2C_1$	75	1	75	–	–	–	–
$A_2B_2C_3$	75	–	–	–	–	1	75
$A_2B_3C_3$	75	–	–	1	75	–	–
Living child, deficiency at birth							
$A_3B_1C_2$	50	1	50	–	–	–	–
$A_3B_2C_1$	50	1	50	1	50	–	–
$A_3B_3C_1$	50	1	50	–	–	1	50
$A_3B_2C_2$	25	1	25	3	75	2	50
$A_3B_2C_3$	25	16	400	17	425	11	275
$A_3B_3C_2$	25	4	100	6	150	2	50
No deficiency at birth							
$A_3B_3C_3$	0	154	–	128	–	62	–
Total		180	825	160	1,150	83	875
average score	$100-\frac{\text{penalty points}}{N}$	$100-\frac{825}{180}=100$ $-4.6=95.4$		$100-\frac{1150}{160}=100$ $-7.2=92.8$		$100-\frac{875}{83}=100$ $-10.5=89.5$	

Table 5-6. Comparison of Obstetric Outcomes among Index and Subsequent Infants, YMP

Outcome	Index			Subsequent	
	No.	%		No.	%
Survival					
Perinatal death	2	1.1		9	8.8
Living child	178	98.9		94	91.3
Total	180	100.0		103	100.0
$X^2_1 = 8.26$			$p < 0.01$		
Prematurity					
Less than 1,000 gm	2	1.1		3	2.9
1,000–2,499 gm	19	10.6		25	24.3
2,500 or more gm	159	88.3		75	72.8
Total	180	100.0		103	100.0
$X^2_2 = 11.04$			$p < 0.01$		
Apgar scores (5 min.)					
0–3	4	2.2		7	7.1
4–6	6	3.3		4	4.0
7–10	170	94.4		88	88.9
Total	180	100.0		99[a]	100.0
$X^2_2 = 4.11$			p not significant		

[a] Data missing on four infants.

Table 5-7. Comparison of Obstetric Outcomes by Birth Order of Child, YMP Index and Subsequent Infants

	Birth Order					
	1		2		3	
Outcome	No.	%	No.	%	No.	%
Survival						
Perinatal deaths	1	0.6	6	7.1	4	14.3
Living children	167	99.4	79	92.9	24	85.7
Total[a]	168	100.0	85	100.0	28	100.0
		$X^2_2 = 15.16$		$p < 0.001$		
Prematurity						
Less than 1,000 gm	1	0.6	2	2.4	2	7.1
1,000–2,499 gm	17	10.1	16	18.8	10	35.7
2,500 or more gm	150	89.3	67	78.8	16	57.1
Total[a]	168	100.0	85	100.0	28	100.0
		$X^2_4 = 20.51$		$p < 0.001$		
Apgar scores (5 min.)						
0–3	2	1.2	5	5.9[a]	4	16.0[b]
4–6	5	3.0	5	5.9	4	16.0
7–10	161	95.8	74	88.1	17	68.0
Not known			(1)		(2)	
Total[a]	168	100.0	84	100.0	25	100.0
		$X^2_4 = 22.68$		$p < 0.001$		

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[a] Birth order was not available on the two subsequent deliveries at the Hospital of Saint Raphael, so they were excluded from this analysis, giving a total of 281.

[b] Percentages calculated on those girls for whom complete data were available.

Table 5-8. Average Intervals and Range of Intervals from Termination of Previous Pregnancy to Conception of Subsequent Pregnancy, YMP Mothers with Subsequent Deliveries

	Months from Previous Termination to Conception			
Outcome Status	No.	Average	Median	Range
Stillbirth	1	6.0	6.0	6
Hebdomadal death	8	13.0	14.5	3–29
Premature living child	20	12.7	10.5	4–36
Full-term living child	73	12.3	10.0	1–47
Total	102[a]	12.4	10.0	1–47

[a] One set of twins was considered one delivery. F-test: $F = 0.230$; $p = > 0.5$.

Table 5-9. Obstetric Outcome of Index Pregnancy for Mothers with a Subsequent Delivery and Those without One, YMP

Obstetrical Outcome at Index Pregnancy	Those with Subsequent Delivery		Those without Subsequent Delivery	
	No.	%	No.	%
Stillbirth	0	–	0	–
Hebdomadal death	0	–	2	2.0
Premature living child	9	11.4	10	9.9
Full-term living child	70	88.6	89	88.1
Total	79	100.0	101	100.0

6 Evolution of Life Styles

Between the time they registered for the special program and their final interview, the lives of the young women in the study population underwent changes in many areas, including education, childbearing, employment, financial support, and marriage.[1] By 26 months postpartum, several distinct life styles, or combinations of status in these areas, had emerged.

Progress in Education

The proportion of girls in each study group who were in school, graduated, or had dropped out at various times before and after delivery of the index child is shown in Table 6-1.

YMP group: At registration for the Young Mothers Clinic, 150 of the 180 girls in the YMP were in school; the remainder had dropped out previously. The strong emphasis on continued education by clinic and school personnel assisted 86% to remain in school during the pregnancy, either at the special school (84%) or in the regular classrooms (2%). Of those in school at the time of registration, essentially all continued in either the special or regular school (Fig. 6-1). Among those who had already terminated, only about a quarter took advantage of the opportunity to attend the special school, even though encouraged by personnel of the special clinic. These data suggest that a special school may not be an effective way to reach pregnant dropouts, although it may be an effective way of maintaining educational continuity for the girls who are still attending school when they become pregnant.

By three months postpartum, the demands of the early childbearing months had brought the percentage of dropouts to 19%. Most of those in school at registration were still in school, and 6% had graduated. The majority (76%) of the school attenders were in New Haven high schools, but 8% were in the intermediate schools (grades 7–9) and several were still at the McCabe Center or at night school, trade school, or other educational facilities.

By 15 months postpartum, the percentage of high school graduates had tripled (23%), but the percentage of dropouts had more than doubled to 44%. Thirty-three percent were still attending school, not including the three in college who were counted among the 38 graduates. About 30% of those in school at three months had dropped out (Fig. 6-1). Among the noncollege school attenders, 82% were in New Haven high schools, one was still in an intermediate school, and the remainder in trade, night, or special schools.

At the end of the study period, 30% of the young mothers had graduated, an increase of only 7 percentage points in eleven months. The proportion of dropouts had increased to 49%, and 21% of the young mothers were still in school (23 girls in New Haven high schools, 4 in night school,

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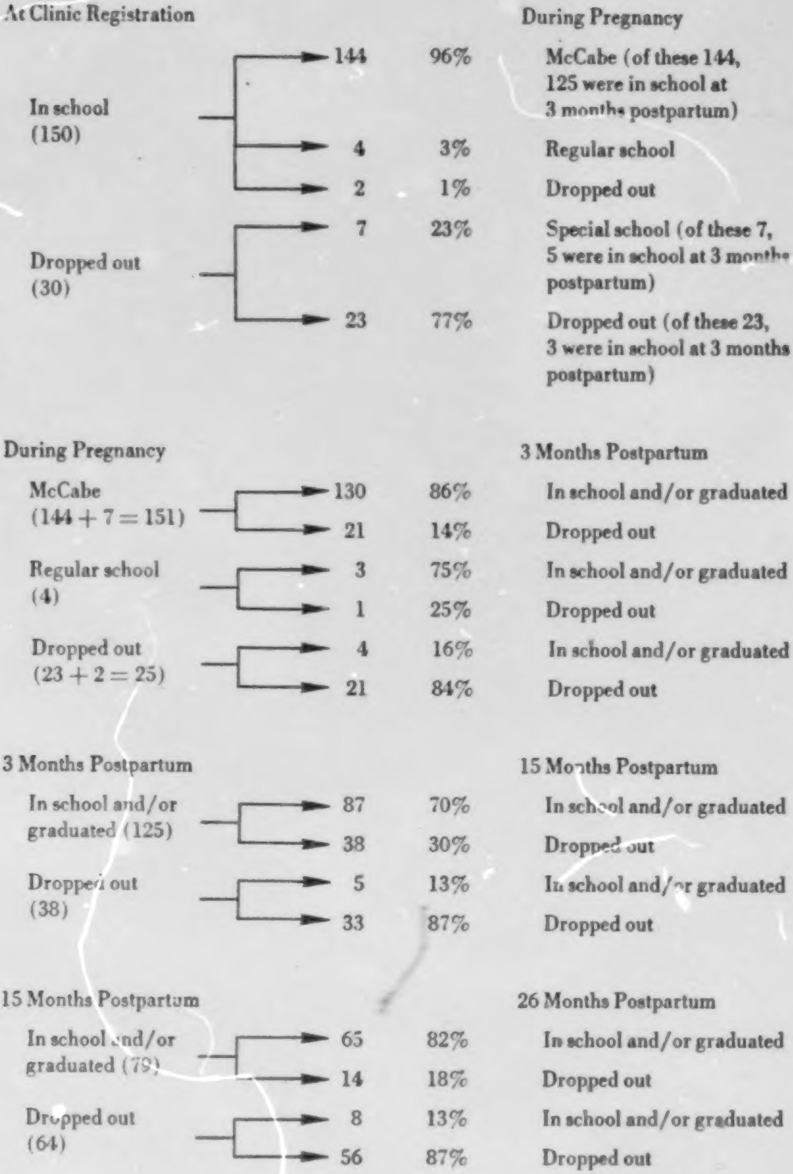
[1] Unless otherwise indicated, all data in this chapter were obtained by interview. Percentages are based on those interviewed rather than on the total number in the study group.

Fig. 6-1. School Status Trends over Time, YMP



At Clinic Registration			During Pregnancy
In school (150)	144	96%	McCabe (of these 144, 125 were in school at 3 months postpartum)
	4	3%	Regular school
	2	1%	Dropped out
Dropped out (30)	7	23%	Special school (of these 7, 5 were in school at 3 months postpartum)
	23	77%	Dropped out (of these 23, 3 were in school at 3 months postpartum)

During Pregnancy			3 Months Postpartum
McCabe (144 + 7 = 151)	130	86%	In school and/or graduated
	21	14%	Dropped out
Regular school (4)	3	75%	In school and/or graduated
	1	25%	Dropped out
Dropped out (23 + 2 = 25)	4	16%	In school and/or graduated
	21	84%	Dropped out

3 Months Postpartum			15 Months Postpartum
In school and/or graduated (125)	87	70%	In school and/or graduated
	38	30%	Dropped out
Dropped out (38)	5	13%	In school and/or graduated
	33	87%	Dropped out

15 Months Postpartum			26 Months Postpartum
In school and/or graduated (79)	65	82%	In school and/or graduated
	14	18%	Dropped out
Dropped out (64)	8	13%	In school and/or graduated
	56	87%	Dropped out

3 in trade school, and 1 outside New Haven).

Figure 6-1 shows the attrition over time in a more graphic fashion. The numbers are smaller than in Table 6-1 because information had to be available for each individual at both points in time for inclusion in each transition. Using the percentages derived by this method, a table of transitional probabilities was constructed (Appendix H.)

IAS group: All 160 of the school-age pregnant girls were attending school when they registered for the IAS program—this was an intake requirement—and they all attended the IAS-run school during pregnancy. By 3 months postpartum, baby-care responsibilities began to take their toll in Hartford as well: 12% of the girls had dropped out and only 3% had graduated. At 15 months postpartum the proportion of graduates had risen to 21%, but the dropouts also had increased to 24%. Although the percentage of IAS graduates exceeded that in the YMP by 26 months postpartum, and the percentage of dropouts remained less, the rate of dropping out in Hartford did not tend to level off as it did in New Haven.

Comparison group: Even though data were less complete,[2] the Comparison group obviously was at an educational disadvantage from the time of clinic registration. Two-thirds already had left school, probably because of the older age of that group and the school's policy of encouraging pregnant girls to leave after the fourth month. None of the prior dropouts took advantage of homebound instruction during pregnancy. Among the girls in school, only two received homebound instruction, and the remaining girls stayed in their regular schools for part of their pregnancies. The exclusion rule probably was not strictly enforced for those who really wanted to continue their education.

In each of the succeeding study periods a few of the Comparison group mothers graduated and a somewhat larger number left school. Data could not be obtained on 26-month postpartum status, but at approximately six years postpartum, 14% of the Comparison mothers had graduated and 10% were enrolled in some kind of educational program.

Effect of Educational Programs. An attempt was made to determine the impact of the special educational programs by comparing the educational achievement of those pregnant girls who had the opportunity to enroll in such a program (the YMP group) and the Comparison group, which did not. (The IAS group is not included in the comparison at this point because being in school was required for program registration.) Since information on the educational status of the YMP girls was available only up to 26 months postpartum, these data had to be projected to compare them with the Comparison mothers six years after delivery. At 26 months, 30% of the YMP mothers had graduated and another 21% were still in school. If all the YMP girls who were still in school at 26 months had graduated by six years postpartum and none of those who dropped out at 26 months returned to school, then approximately 50% of the YMP mothers in contrast to only 14% of the Comparison mothers would have their diplomas. If only half of those still in school graduated, the comparison would be 40% YMP to 14% Comparison. These differences are statistically significant at the 0.001 level.

This research, therefore, suggests that the special educational program at the McCabe Center assisted students to stay in school during pregnancy, to return to school after delivery, and eventually enabled approximately twice the proportion to graduate than would have done if the special program had not been provided. Since some of the Comparison group students were able to continue in regular school or to have homebound instruction if they chose (Holmes, et al., 1970), the contrast was not between school and no school but between access to regular school (without special encouragement) and access to a special program (with encouragement to continue).

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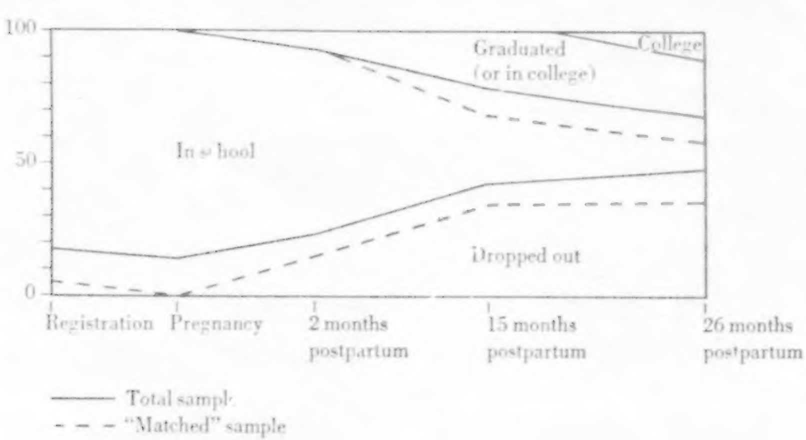
[2] Data on the Comparison group at registration, during pregnancy, and at 3 and 15 months postpartum were based exclusively on school records. The six-year data were based on interview data plus school-record data. The sources of YMP and IAS data were social worker reports, hospital records from registration and pregnancy, and interviews at 3, 15, and 26 months.

Relative Impact of Special Programs. The approach to education in the IAS school did not differ greatly from that at McCabe. Both programs stressed small student–teacher ratios, individualized attention, and remedial instruction as necessary. Was one program more effective than the other? If only the total groups are compared, apparently the IAS students were higher achievers by 26 months postpartum, by which time less than 40% of its alumnae had dropped out, in comparison with almost half of the YMP alumnae. (The percentage of graduates cannot be compared because the YMP accepted students from grades 6–12 while the IAS accepted only grades 9–12.) This finding is not surprising since the IAS school selected girls who wanted to go to the school, while McCabe urged all, including recent dropouts, to attend.

When only the YMP students who registered in the special school and were 9th grade or above were compared with the IAS students (the "matched" groups), the differences in educational outcomes were much smaller at 15 months and disappeared entirely by 26 months (Table 6-1)! The conclusion, therefore, is that these data provide no basis to claim educational superiority for either of these programs. When they teach the same types of students, i.e. those 9th grade and over and still in school when they become pregnant, both appear equally effective in assisting girls to continue their education. (Figure 6-2 shows more graphically the effect on the YMP group of the elimination of the dropouts and girls in grades 6–8.)

Factors Affecting School Attendance (YMP Only). In order for a program participant to remain in school, her desire for education or other motivation for attending

Fig. 6-2. Educational Progress, YMP Total and "Matched" Groups



school had to be strong enough to overcome the obstacles which young motherhood placed in her way.

Reasons for leaving school: All young mothers who had left school before graduation were asked, in each of the three interview waves, why they had left school. At 3 months the largest number of those not attending school (26%) gave reasons related to their infants. A few were negative about school and most of the other answers were vague or undefined. At 15 months, baby-related problems still were stated most often as the reason for dropping out, but negative feelings toward school had become much more prominent and reasons related to marriage were now given as well. Some examples of these responses were, "No one to care for the baby," "I don't like school, teachers nasty sometimes," and "Had to get married." The picture remained the same at 26 months.

One of the problems which made remaining in school difficult was finding someone to care for the child. At 3 months postpartum, the young mothers had made a variety of arrangements for infant care. Of the 129 interviewed who were attending school, 52% left the babies with their mothers, 10% with other members of their households, and 4% with someone who came in. An additional 21% left the infants elsewhere. The remaining 12% had a variety of other arrangements or combinations of those listed above.[3] Twenty-seven (21%) of the 129 had to pay someone to care for the baby while they were in school. Baby-care arrangements were essential, since most of the mothers in school were attending five days a week for more than five hours a day.

At 15 months, among children of mothers still attending school, the proportion in various care arrangements remained relatively stable, the largest group still being cared for at home by the girl's mother. However, the percentage paying for child care increased to 33%.

Of those mothers attending school at 26 months, the majority of the infants were still being cared for by the girl's mother in her home. At this time 36% were paying for child care.

Educational goals: When asked about their educational goals prior to the pregnancy, only 13% of the girls planned to drop out, 65% to finish high school, and 23% to continue after high school. Of those seeking education beyond high school, 49% wanted to go to college, 18% to nursing school or LPN program, and 33% to secretarial, technical, or trade school. At 3 months, 47% of those in school planned to finish their education when they graduated from high school, and 53% to continue after high school. All those who had planned to drop out apparently had done so by this time.

Although at 3 months postpartum the number of girls planning to pursue education beyond high school was only slightly more than those who planned to stop after high school graduation, at 15 months the number who planned to continue was over twice those who planned to stop. Probably those with higher educational goals had been able to continue while those with lower goals had dropped out.

At the end of the study period the mothers still in school were divided between those who wanted to continue education after high school and those who expected to terminate education with graduation. These remaining students were the ones who were at the younger end of the age spectrum when they became pregnant, and this may be related to the lower educational goals.

Problems with Child-Spacing

The problem of rapid subsequent pregnancy among YMP participants and its effect on the health of the later infant has been reviewed. In this chapter subsequent pregnancies among the three study groups will be compared at three time periods and the interview material examined for insights into the young mothers' problems in this area.

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[3] This percentage includes one infant not living in the household.

Comparison of Study Groups. At 15 months postpartum, 18% of the YMP respondents reported that they already had terminated another pregnancy and 7% said they were pregnant at the time of the interview (Table 6-2). The corresponding figures for IAS were 13% terminated and 7% pregnant. At a comparable time, however, 47% of the Comparison mothers had experienced another pregnancy.

At 26 months, 27% of the YMP respondents reported one or more pregnancies terminated and 21% pregnancies in progress. Among the IAS respondents, 24% had terminated one or more pregnancies and 25% were pregnant. Matching eliminated these already minimal differences (Table 6-2). By contrast, at a comparable time, 53% of the Comparison mothers had another termination, and another 13% were pregnant. The young mothers in the special programs were more likely to delay subsequent pregnancies, but the Connecticut law forbidding contraceptives, rather than the influence of the special programs, may explain much of the difference.

Life table: Using the life table method (Currie et al., 1972), the two-year rate of subsequent termination for the YMP mothers was 39%, and for the Comparison mothers 53%. The 21-month rate, mentioned by Dempsey (1969) as a possibly more useful time interval, was 31% for YMP and 47% for the Comparison group. (The actual proportion remaining unterminated at any point is given in Table 6-3.) The data for this analysis were taken from hospital records since the exact time of pregnancy termination is needed for a life-table analysis.

The two groups differed in the rapidity with which their members terminated subsequent pregnancies, except for the nine months following the index delivery when termination would indicate an abortion or premature birth. This difference was most marked between 18 and 27 months. By 18 months postpartum almost half the Comparison mothers had experienced a subsequent pregnancy, compared to less than a quarter of the YMP mothers. After this point, however, the YMP rate of termination increases and by 39 months postpartum the differences were less marked.

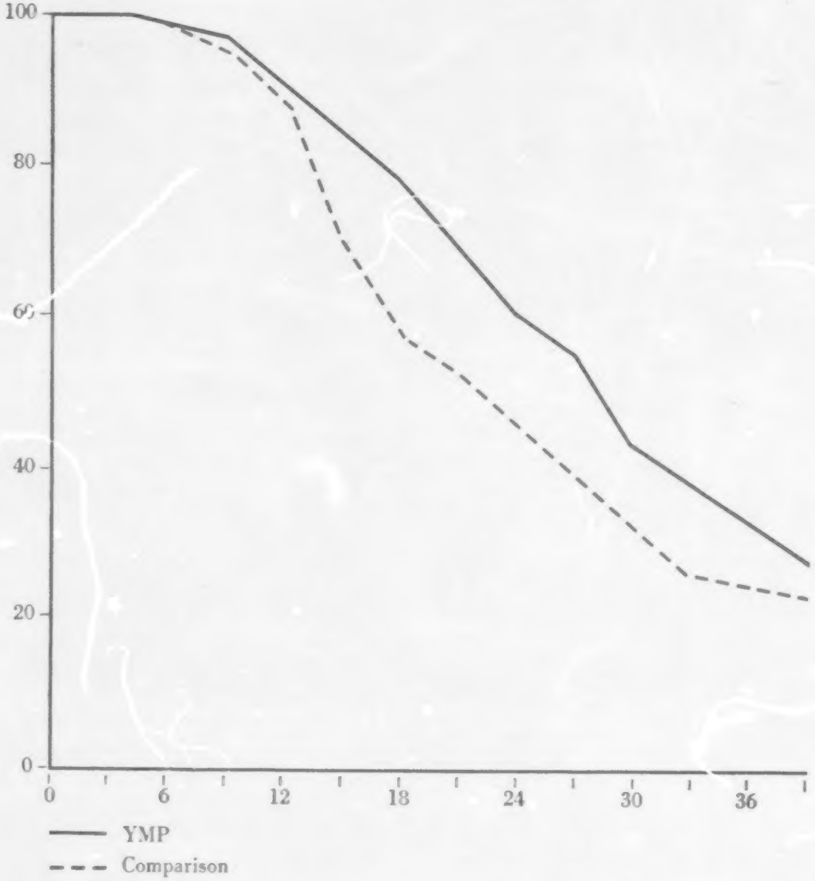
These differences are reflected in the two life-table curves (Fig. 6-3). Although on the whole the two curves are significantly different, they run approximately parallel from 18 to 33 months. After 33 months the curve for the Comparison group levels off, but that for the YMP continues at its previous rate.

Factors Affecting Child-Spacing. Child-spacing is determined in part by the woman's desire for additional children and, in the sexually active female, by her ability to use contraceptives effectively.

Number of children desired: At 3 months postpartum, 13% of the respondents stated that they wanted only one child. The number who did not want to have additional children was slightly larger since it included some who said they wanted only two children and already had two. Forty-five percent wanted two children, 24% wanted three, and 15% wanted four or more. The remainder did not know how many they wanted or were sterile because of hysterectomy. The average number of children wanted was 2.5, which is lower than the number found in the Brunswick (1971) study in Harlem.

At 15 months, the number of children wanted had risen. Only 8% wanted a single child and the percentage wanting four or more had risen to 21; the average number of children wanted was 2.6. At 26 months, those wanting only one child were down to

Fig. 6-3. Cumulative Percentage without Subsequent Termination of Pregnancy at Specified Intervals after Index Delivery, YMP and Comparison Groups



5% and those wanting four or more was up to 25% ; the average number was 2.8. The figures probably reflect the fact that the girls indeed were having more children (Table 6-4).

The respondents were asked if they thought they would be able to arrange to have the number of children they desired. At 3 months postpartum only 68% felt they could plan adequately, 7% stated they could not, and the remainder were unsure or gave responses that indicated some uncertainty, such as "I hope so." Confidence seemed to increase over the study period. The percentage who felt they could manage their fertility increased, and fewer were unsure of their ability to control fertility (Table 6-5).

Contraceptive use: Most of those who had confidence in their ability to plan the number and spacing of their children gave "the pill" or a combination of birth control measures as reason for this confidence. As time progressed, an increasing proportion looked to a method other than the pill, or to a combination of methods, as the contraceptive practice they would choose (Table 6-6). The increasing proportion that believed family planning was possible (Table 6-5) continued to give the existence of contraceptives as the primary reason.

Almost three-quarters of the nonpregnant, nonsterile young mothers claimed to be using a contraceptive at three months postpartum. Despite the increasing confidence that they could control subsequent fertility by means of contraceptives, the proportion using contraceptives decreased over time, even among those who did not become pregnant. The fact that being in school at three months postpartum was a better predictor of delaying subsequent pregnancies than was acceptance of contraceptives (Jekel et al., in press) and that a large number of YMP mothers requested and received induced abortions (36 known after a follow-up of 3–5 years), raises questions about the accuracy of the estimates of their ability to control conception. Certainly the prescription of contraceptives cannot be equated with their effective use in a school-age population.

Progress toward Economic Independence

Dependence on welfare support for food, clothing, housing, and other necessities is frowned upon in the United States, particularly for able persons of working age. The general public is greatly concerned about the increase in the numbers of families supported under Aid to Families of Dependent Children (AFDC), but neither federal or state legislatures nor the social welfare establishments have been able to solve the problem. One reason for the current interest in childbearing in school-age mothers is the knowledge that such mothers and their infants frequently become AFDC cases either until the infant is of school age or older or on an almost permanent basis, broken by periods of temporary employment or spouse support.

One way of evaluating comprehensive service programs for school-age mothers is to determine whether they have any effect on the young mothers' financial independence. This effect is difficult to trace because two of the program objectives might have opposite short-term results in terms of progress toward economic independence. If the goal were to keep a young mother in school at least until high school graduation—and longer if she had the inclination or ability—her potential for future employment would increase, but it would be difficult for her to work more than part time and she would tend to remain dependent on welfare. Delaying subsequent pregnancies for at least two years, however, would reduce the amount of welfare assistance a young mother might need (in comparison to having one or more subsequent children) and would make it easier for her to find work.

Employment. Employment is a questionable criterion for a young mother's success. Many feel that the program participants should stay home and concentrate on their children and their studies, rather than enter the labor market. The consensus among the research staff was that desire and ability to be a productive member of society was a positive indication, and that program participants who displayed this characteristic should be counted as successful, as were those who graduated from high school and those who delayed subsequent pregnancies.

Comparison of study groups: Nineteen percent of the YMP respondents were employed by 3 months postpartum. This increased to 31% by 15 months and remained relatively unchanged at 26 months. The IAS figures were similar although they started with a smaller percentage. This may be related to the IAS tendency to keep girls in the special school for a longer period than the YMP's McCabe Center or to differences in employment opportunities in the two areas. A larger percentage of IAS respondents was working at 15 months, but this dropped off to YMP levels at 26 months. The matching process did not remove the differences, suggesting that they were not due exclusively to differences in the populations (Table 6-7).

Type of employment (YMP only): At the first postpartum interview seven girls were employed in secretarial or clerical jobs, five were in factory jobs, five in a hospital, four in sales positions, and the remainder scattered through other occupations. As the total number employed increased, so did the number in each of these occupations, but most markedly in the secretarial group. This may reflect the job choice of high school graduates (Table 6-8). At each time interval the largest percentage of the employed mothers were working between 31 and 40 hours a week and the trend was toward a greater percentage working a full week (Table 6-8).

The mothers apparently enjoyed their work: 71% said they liked the type of work they were doing at 3 months; 80% responded favorably at 15 and 26 months (Table 6-8). Most of the infants of the currently employed mothers were cared for by the grandmother or someone else living in the household, or by someone who came to the household. The proportions of infants taken elsewhere for care by working mothers were 22% at 3 months, 27% at 15 months, and 17% at 26 months (Table 6-8).

Employed since delivery: Perhaps of greater significance was the proportion of the young mothers ever employed since delivery. Over a third of the YMP respondents at 3 months reported employment. By 15 months postpartum over two-thirds had been employed since delivery, and over three-fourths at 26 months. An increasing proportion of IAS respondents had some employment after delivery, reaching 82% by 26 months. Matching did not decrease the differences between the YMP and IAS group at 3 months, but made the two populations quite similar at 15 and 26 months (Table 6-7).

Most employment appeared to be of short duration. When the girls who had worked since delivery but were not employed at the time of the 26 month interview were asked why they stopped working, job dislike and baby-related reasons were most often stated (Table 6-9). The jobs they had left also suggest that heavier work, such as factory and hospital employment, was less desired (Table 6-9).

Welfare Dependence. As in the case of employment, a question can be raised about the utility of criteria of economic independence in this population. If the young mothers were to concentrate their attention on their children and their education, could they be expected through their own employment efforts to become financially independent? Presumably the other alternatives were marriage, support from the putative father, or support from their parents.

Comparison of study groups: At the time they registered for the program, 80% of the YMP group was receiving some type of welfare assistance. Among the YMP mothers, welfare dependence declined to 77% at 3 months, 69% at 15 months, and 61% at 26 months. Among those receiving assistance, however, welfare dependence was not total; even at three months, only 6% of the girls gave welfare as their only source of income; 6% did so at 15 months, and 8% at 26 months. The contributions of parents dwindled over time: at 3 months, 81% of the girls were receiving help from their parents; at 15 months, 66%; and at 26 months, 51% plus 8% who said "sometimes." Support from the putative father also decreased: 64% at 3 months, 65% at 15 months, and 44% at 26 months plus 5% "sometimes."

At registration, 71% of the IAS group were receiving some welfare assistance. By 3 months postpartum the figure was about the same (73%), and it had not changed very much by 15 months (65%) or 26 months (71%). The absence of a decline in the proportion of the Hartford group dependent on welfare may be related to the fact that a higher proportion was in school and a lower proportion was married at these points in time than was true of the YMP group.

As in New Haven, the majority of those receiving welfare were only partly dependent upon it. At 15 months, 59% of the respondents were receiving financial assistance from parents but by 26 months postpartum the percentage had dropped to 39. Likewise, 62% of the putative fathers were giving financial help at 15 months, but by 26 months this had declined to 42%. There was a concomitant increase in the proportion totally dependent on welfare, from 7% at 15 months to 25% at 26 months, and this was related to the decreasing assistance from the above sources.

Marital Status

Although some members of society feel that marriage among school-age parents should be encouraged in order to legitimize sexual activity and to provide the child with both parents, most members of the research team were against using marital status as a measure of success. Since marriages among young people have a high probability of ending in separation or divorce, they felt the effect of marriage ultimately might be more traumatic to parents and child than remaining single. Sauber (1970), for example, in a six-year follow-up of out-of-wedlock pregnancies, found that the women doing most poorly after six years were those who were separated or divorced.

Comparison of study groups: None of the girls in the YMP or IAS study groups was married at registration, since this was a criterion for inclusion in the study. Some of the pregnant girls, however, did marry before delivery: 3% in the YMP and 5% in the IAS. By 3 months postpartum, 7% of the YMP and 5% of the IAS mothers were married; by 15 months 22% of the YMP and 13% of the IAS, and by 26 months 31% of the YMP and 24% of the IAS mothers had been married. Thus, two years after the birth of their infants, less than a third of either study group was married (Table 6-10). Early childbearing had not led to early marriage. Despite the fact that the YMP population was younger, a higher percentage of this group than of the IAS was married at each time interval. Matching did not eliminate the differences. There is no reason to believe that this difference was program-related. These marriages began to dissolve quite early. One YMP girl reported being separated at the first interview, four at the second, and one additional girl at the third. Nine (32%) of the 28 ever-married IAS respondents reported themselves either separated or divorced at 26 months (Table 6-10).

Husbands (YMP only): The mothers tended to marry men about two years older than themselves. At 15 months postpartum, 4 of the YMP husbands were still in school, 14 had finished high school, and 14 had dropped out. Eight of the husbands were in military service, and of the remaining 21 with jobs, almost half were working in factories and a quarter were mechanics. Seven of the 45 husbands were in school at 26 months postpartum. Seven of the 38 husbands working at 26 months were employed in factories, 5 in construction, 5 in the military service, and the remaining 21 were in a variety of other jobs or in a combination of jobs.

All thirteen of the YMP mothers who were married at three months postpartum stated they had married the father of the index infant. During the second and third interviews, however, about a quarter of the married mothers reported marrying someone who was not the baby's father.

Associations among Outcomes at Two Years Postpartum (YMP Only)

The measures of outcome at 26 months were frequently associated with each other.

Education: Among all those young mothers who had not had a subsequent pregnancy, 67% were still in school or had graduated, compared to only 34% of those who had had one or more subsequent pregnancies ($p = 0.001$). Likewise, those who were married were only half as likely to be a school success (30% compared to 61% for those not married). Moreover, among those working at 26 months, 78% were still in school, compared to 38% of those not working. However, there was no association between income source and education at 26 months postpartum.

Pregnancy: School attendance or graduation apparently delayed pregnancy. Only 32% of those in school or graduated were pregnant again in 26 months in comparison to 65% of the dropouts. Married girls presumably were at higher risk for pregnancy than single girls. The data confirmed this hypothesis: 67% of the girls married by 26 months had a subsequent pregnancy also by 26 months, in contrast to 39% of the unmarried.

Employment: Apparently, employment was not a major reason for leaving school since 14% of those who dropped out were working at 26 months as contrasted to 48% of those still in school or graduated. A subsequent pregnancy obviously would interfere with working: only 9% of those pregnant again were working in contrast to 51% of those with no subsequent pregnancy. This may explain partially the relationship between school status and employment. The girls who left school became pregnant and chose not to work. Marriage did not have a significant effect on employment: 33% of the single mothers were employed in comparison to 27% of the married.

Welfare: School status had no strong impact on welfare dependence. Somewhat more than half the girls in both the in-school-graduated (57%) and dropout groups (68%) were receiving welfare; 71% of those pregnant again were being assisted as against 55% of those who had delayed another pregnancy. Obviously, employment would reduce welfare dependence: 29% of those currently employed required welfare aid in contrast to 78% of those not working. Also, those who were married were significantly less likely to be on welfare at 15 months ($p < 0.001$) and at 26 months ($p = 0.003$); this was apparently due to the husbands' support, often supplemented by employment income from the young mothers.

Marital status: The previous analyses have shown that being married or separated was associated significantly with premature termination of education, short intervals between pregnancies, and independence from welfare assistance. The next chapter will examine this relationship in more detail, although the direction of cause and effect can never be certain. That is, did marriage cause some girls to leave school to devote their time to husband or child or children; or were those girls who left school the ones who preferred marriage and family-related activities rather than academic pursuits?

Life Styles at Two Years Postpartum

By 26 months postpartum, some of the young mothers had attained several of the objectives the program staff had encouraged. Others had not achieved in the ways the personnel had hoped. "Successes" and "failures," however, were not assorted randomly. Rather, successful outcomes, as measured in this study, fell into a few logical patterns or life styles. The two outcomes which together seemed to best characterize a life style were educational status and subsequent pregnancies. The research staff had decided that remaining in school or graduating during the 26-month follow-up period represented a "success" in terms of program goals. Likewise, because of the negative implications for health and the ability to cope, remaining free of further conceptions throughout the study period also was considered a positive outcome.

YMP group: Among the total YMP study group, almost exactly half (51%) of the young mothers had graduated or were still in school by 26 months postpartum and the remainder had dropped out. Also, about half (52%) had not become pregnant again and the remainder had. If these variables were randomly distributed, about one-quarter of the young mothers would have fallen into each of the four possible combinations: school + no pregnancy (success); school + pregnancy (partial success); dropout + no pregnancy (partial success); and dropout + pregnancy (nonsuccess). Actually, more than the expected number fell into the success category, "school + no pregnancy" (35%) and the nonsuccess category, "dropout + pregnancy" (32%). The other combinations accounted for 16% and 17% respectively (Table 6-11). The probability of this distribution occurring by chance was very remote, less than 1/1000.

IAS group: The 113 IAS mothers interviewed at 26 months postpartum showed a similar, but not identical, pattern (Table 6-11). A slightly larger percentage was in the nonsuccess group (24%).

Young Mothers' Appraisal. The young mothers' appraisal of their situation was requested at the time of the 26-month interview: "Taking all things into consideration, how well do you think you are getting along?" The answers for the total YMP group were: 15% "very well," 75% "fairly well," 8% "not too well," and 2% "poorly." Among the successes, all said they were doing "fairly well" (80%) or "very well" (20%). The majority of the partial successes felt they were doing "fairly well" (79%). Of the nonsuccess group, 65% also felt they were doing "fairly well," and 17% said they were doing "poorly" or "not too well."

In contrast, however, among the IAS group, 19% of the successes rated themselves as doing "poorly" or "not too well"; 69% of the success group rated themselves as doing "fairly well" and 12% as doing "very well." No one in the nonsuccess group rated herself as doing "poorly," although

25% rated themselves as "not too well." From this it is obvious that the girls' self-appraisal of their situation at 26 months did not always agree with the research team's two-factor index of their success at this time (Table 6-12).

Associations with Life Styles. *Marriage:* Most in the YMP success group were single (86%). The nonsuccess group was split almost equally between those who married (52%) and those who remained single (48%). Among those successful on one of the two primary outcome measures, 31% were married. Although the IAS differences were less striking, the trend was for those in the success group to be single (Table 6-13). In Hartford, the dropouts without a subsequent pregnancy had a pattern similar to the success group.

Employment: Among the YMP success group, 68% were currently employed at 26 months postpartum and 90% had been employed at some time since delivery although they were not working at the time of the final interview. Among the nonsuccess group, only 7% were working, although 67% had worked at some time since the index delivery. Seventy percent of the partial success groups had worked at some time since their index deliveries, but only about 20% were working when interviewed for the last time (Table 6-14). Having avoided a subsequent pregnancy appears to have been more important than school success in enabling the girls to be employed at the time of the last interview.

In the IAS population, pregnancy appeared to influence the probability of being employed at 26 months more than did educational status (Table 6-14). Of the girls who had experienced a subsequent pregnancy, only about 12% were working, but if they had not had a subsequent pregnancy, 48% were working. On the other hand, 35% of those in school or graduated were working, compared to 23% of those who had dropped out, which is not so great a difference. One child did not necessarily prevent a mother from entering the work force or remove her from it; two children were much more likely to do so.

Welfare status: At 26 months postpartum, 51% in the YMP success group reported that they were receiving no welfare support, whereas approximately 30% of those in the partial and nonsuccess groups were independent of welfare assistance. Again there is a pattern with regard to total dependence on welfare, suggesting that subsequent fertility is more important than educational achievement in achieving economic independence. Regardless of school status, approximately 18% of those with subsequent pregnancies were totally dependent on welfare, in contrast to only 3% of those without subsequent pregnancies (Table 6-15).

In the Hartford study sample, the success group (school + no pregnancy) was clearly more economically independent than the other three classifications, with fewer totally dependent on welfare and more totally independent. The two partial success groups were less independent, and the nonsuccess group had a very small proportion totally independent of welfare (11%; Table 6-16). The Hartford study group as a whole was more likely to be on welfare at the time of the final interview. The reasons for this are not clear, since there was no great difference between the two study samples in welfare support at the second interview. Marital status may partly explain the differences: those who were married were more likely to be economically independent, and almost twice as many YMP mothers were married and not separated at the last interview (29%) as members of the IAS group (16%; Table 6-10).

Case Studies

Very different life styles can be illustrated by the four young mothers selected for case studies.

Alice. In her 3-month postpartum interview, 17-year-old Alice still hoped for some type of vocational training. Her mother was described as "very cordial." When the interviewer returned at 16 months postpartum she found that Alice had graduated from high school. One year after delivery she had married the 21-year-old father of her baby; the father was employed. Alice was working in a factory, but she did not enjoy her job.

The third interview found Alice sharing an apartment with a friend, "while my husband is away and until I find a place." She was now enjoyably employed by a utility company in a skilled job. Her mother cared for the 2-year-old child while Alice was working. The girl had experienced no further pregnancies and planned none, stating that she did not like being pregnant. She was taking birth control pills despite her apprehension about "all the talk about them." Alice answered the question, "How well do you think you are getting along?" by replying "Fairly well." Her greatest problem was "Money, since I like to buy a lot of clothes." She hoped that her child would be "able to get through college and take care of herself when grown."

By 26 months, Alice's life style was a success by program standards. She had graduated from high school, had no subsequent pregnancies, and was employed.

Betty. Betty was unable to continue her education after the birth of her child. At the 3-month postpartum interview she had dropped out of school because she could not find a babysitter. She was not employed, she was supported by welfare, and she was living with a female relative who was in poor health. When asked how many children she wanted, Betty said, "One" and thought she could arrange it, but she wasn't sure how. She was using contraceptive pills at this time.

Nine months later, Betty was married and again pregnant. Her 22-year-old husband, who was not the father of her first child, was unemployed. They were living with Betty's relative and receiving welfare aid. She had stopped taking the pill at the time of her marriage, because her husband wanted a child. Betty now hoped to have "not more than four children." Betty's second child was born two months after the interview.

The final interview found Betty unemployed and pregnant with her third child. Betty told the interviewer that she wanted this baby and had not been using contraceptives. Her marriage was unhappy, and the interviewer felt that the husband was hostile. They were receiving welfare. When asked how she was faring, Betty stated, "Not too good." Her greatest problem was, "My husband—arguments." She hoped her children would "finish high school and more if they want." She wanted three children but was "not sure about the pill."

In summary, Betty's life style typifies a nonsuccess. She had dropped out of school, become pregnant again, and was unemployed. She had an unhappy marriage. Her ambivalence about her subsequent pregnancies was not unusual; often a girl's hopes and goals were affected by her current problems.

Cathy. Cathy was in her last year of high school at the time of her first postpartum interview; she hoped to go on to business school. She was not employed and was living with her parents. Her baby was left with a sitter while Cathy was in school. She was using the contraceptive pill but said that she would like to have three children; she commented, "Plans don't always work out." The interviewer noted that Cathy's parents were both "exceptionally warm and cordial." The house was rated by the interviewer as "spacious; tastefully and neatly furnished."

At the second interview Cathy had graduated from high school but her babysitter had moved away and as a result Cathy had not been able to continue her education as hoped. She was not employed and was planning to marry the father of her son. She now stated that she wanted only two children and planned to continue on the pill. She wanted to wait three more years to have her next baby in order to "give myself some time to do a lot of things and some college; and my daughter will be four." Cathy's greatest problem was "preparing to get married; not enough money for things I need and unable to work because of babysitter problems."

At the last interview, Cathy was employed by a local department store and had a new babysitter. She had been unable to resume her education after high school graduation. Cathy was still living with her parents and her marriage had been postponed for a year "so we could accumulate something—I was long getting a job." Cathy still planned to have two children and would arrange it by "joining Planned Parenthood." She felt she was getting along "really fine." Her greatest problem continued to be preparing for marriage. When asked what she hoped for her child she said: "I want him to graduate and go to college."

Cathy illustrates the girl who came from an intact family and seemed to be equipped with the strength to handle frustrations. She graduated from high school, was not pregnant, was employed and waiting for marriage until she and her young husband-to-be were more secure financially. Her plans for her future family seemed realistic.

Diane. Diane's first interview was delayed until eleven months postpartum; she was then eight months pregnant again. She had not returned to school, was unemployed, and was living with members of her boyfriend's family. Her baby was living in another city with a relative of the putative father.

Diane said that she "got the pills too late; was already pregnant." She was ambivalent about childbearing, at one point stating she hoped to have three children and thought she could arrange it; at another, "I don't want any more, but I don't know." The interviewer noted: "This 18-year-old dropout appeared to be intelligent but very alone or unprotected. Despite the deprived surroundings and missing relatives, she maintains on the outside a kind of stiff upper lip. She is an only child of a mother who sees her daughter about once or twice a month. She states that they had a misunderstanding after the birth of the baby." The hospital record contains a note from the visiting nurse who saw and cared for the baby after delivery: the family was concerned because Diane had had some difficulty with the law.

Six months later Diane was living with her second child in an "inadequately and incompletely furnished apartment," according to the interviewer. There was no gas for cooking and her diet consisted of sandwiches. Diane was unemployed but wanted to work if she had someone to care for the baby. She still wanted three children and planned to continue taking birth control pills so she could wait three years to have the next and "give these children time to grow up a bit." "What would you say is your greatest problem now?" drew a poignant reply: "My family; I'd like to be closer to my family and be around them more, especially my mother—I'd like her to trust me more and I'd like to go back living with her again."

Diane was pregnant, still unmarried, and unemployed at the third interview. Her hospital record showed that she had been treated for pelvic inflammatory disease after the birth of her second child. She stated that she never saw the father of her two-year-old. "My mother didn't want me to see him and prevented my marrying." Diane had a new boyfriend and hoped to marry him. Her uncertainty about children was still present. She wanted no more than three children and "hopes" to arrange that by using some birth control method, but admits that she "did not want but one to tell the truth." She thinks she is getting along "fairly well." Her greatest problem is "planning a future for the kids." Her hope for her child: "Let him get through school and college."

Diane's existence seemed to be troubled and rootless. She had little support from her mother and there was no other family nearby. Her surroundings were less than optimal. She had given up her first child to a relative of its father.

Life Experiences after 26 Months Postpartum

Two factors altered the project's original intent not to collect data systematically after two years postpartum, when the final interviews were to be completed. First, it became apparent that the young mothers were more alike at three months postpartum than at fifteen, and more alike at fifteen months than at twenty-six. Like a pack of cards that are dropped, the greater the distance (time) the greater the spread among individuals along almost any of the indicators used in this study. During the first few postpartum months, differences between one graduate and another were minimal; however, as time progressed, some young mothers sought considerably more education than others. In the beginning there was only the difference between one subsequent pregnancy or none; with a longer follow-up some mothers had one subsequent pregnancy and others had many. Earlier, there was only the distinction between being married and not being married; eventually many of the marriages broke up. If the spread between the more and less successful mothers was increasing over time as the successful achieved more and those with severe problems lost ground, data collection after the original cutoff period of twenty-six months postpartum might provide important additional facts about the population.

Second, in the process of reviewing hospital records at the Yale-New Haven Hospital in order to collect dates of termination for the life-table analysis of subsequent pregnancies, notes pertaining to other medical, psychological, and social conditions also were read. The material seemed crucial to a full understanding of the young mothers and a decision was made to abstract it.

Some of the material obtained in this way already has been discussed under health of the infants born subsequently (chapter 5 and Appendix G). The hospital records also revealed chronic health problems, some of which had been present earlier, such as asthma, high blood pressure, kidney disease, sarcoidosis, heart disease, and complications of gonorrhea. Several suicide attempts were noted in the emergency room records, often apparently due to problems with husbands or boyfriends. An appreciable proportion of the marriages proved to be unstable. Despite the availability of contraception, induced abortions and sterilization were sought to terminate or prevent unwanted pregnancies. During the three- to five-year follow-up, 37 induced abortions were recorded, and already 12 of the group had been sterilized. The social problems of the environment in which many of the mothers lived were reflected in violence such as stabbings, or by the use of alcohol and/or dangerous drugs. Of even greater concern were reports of child neglect or abuse (Jekel et al., 1972).

The negative and often tragic picture revealed by the hospital records must be seen in the perspective of the earlier discussion of the divergence over time among the members of the study group. The hospital records describe only the young mothers whose lives were worsening. This picture should be balanced by a description of those who were achieving successes inadequately described by the generalized picture presented in this chapter, but for this another wave of interviews would have been required.

A more balanced description of the long-term situation of these mothers awaits further study, but it is already clear that it is not realistic to expect a short-term intervention program to solve all the medical, social, economic, and personal problems of this population of young mothers.

Conclusions

The YMP and IAS programs enabled a high proportion of their participants to remain in school during pregnancy, and they assisted almost 90% of those who attended the special schools to return to school postpartum. Staying in school and fulfilling the responsibilities of motherhood at the same time appeared to be more difficult: only about two-thirds of the mothers who returned to school postpartum were still in school or had graduated by twenty-six months postpartum.

A wide range of achievement and life style was found among these young mothers, despite their demographic and socioeconomic homogeneity. This finding argues against stereotyping school-age mothers as to motivation or potential for achievement.

No significant differences were found in the educational achievement between similar groups of mothers served by the IAS and the YMP. This study, therefore, did not find an argument for the superiority of one of the special programs as opposed to the other.

The special programs appeared to have impressive initial impact in helping young mothers to delay rapid repeat pregnancies, but this impact declined. The YMP group reached the point where 50% had had subsequent terminations of pregnancies about six months later in the postpartum period than did the Comparison group. After 39 months of follow-ups, approximately the same proportion of both groups had had a subsequent child or were pregnant. The subsequent fertility patterns of these young mothers were determined more by such factors as educational goals and marriage than by the prescription and acceptance of contraception. Obviously, family planning procedures cannot be prescribed in a vacuum but must be given as an adjunct to the achievement of life goals. Because of the relative strengths of the two associations, it would appear that the primary mechanism by which the special programs prevented rapid subsequent pregnancies was through the provision of educational opportunity rather than by the prescription of contraceptives.

Most of the young mothers had worked at some time postpartum, and a considerable number had worked, gone to school, and been mothers at the same time! That is a difficult task for any woman, even if she is fully mature. Three-quarters had demonstrated a willingness to work, although the jobs may have been only temporary, perhaps due to a lack of marketable skills. The avoidance of subsequent pregnancy was the most important predictor of employment at the time of last interview.

Welfare status at the end of follow-up was primarily dependent on four factors: the welfare status of the girl when she became pregnant, her marital status, her employment status, and her subsequent fertility. Those most likely to be financially independent were those who were not on welfare initially, those who were married, and those who were working. Financial independence at this age should probably not be seen as a primary goal, just as it is not for other persons of similar age in our society. Rather, the emphasis should be to ensure that assistance is available, since it is an investment in the future strength and independence of the young mother and her family.

The separate measures of outcome tended to be grouped together in a few logical patterns of life styles, defined primarily by educational, fertility, and marital status. Achievement of program success by twenty-six months postpartum ranged from young mothers who had graduated from high school, avoided rapid subsequent pregnancies, and even attended college, to mothers who dropped out of high school and continued to have children while not married and who were economically dependent. Most of the young mothers fell between these two extremes. For some, the problems appeared to be overwhelming, leading to such desperate acts as attempted suicide, even as others were making impressive progress. The temporary boost given by the special programs was not sufficient to provide permanent support for the more needy of these young mothers.

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Table 6-1. Contrast of Education Status by Time of Interview and by Program (Total, "Matched," and Comparison Populations)

	Total				"Matched"				Comparison	
	YMP		IAS		YMP		IAS			
Education	No.	%	No.	%	No.	%	No.	%	No.	%
At registration										
In school	150	83.0	160	100.0	114	95.8	152	100.0	48	67.6[a]
Dropped out	30	17.0	0	–	5	4.2	0	–	23	32.4
Total	180	100.0	160	100.0	119	100.0	152	100.0	71	100.0
During pregnancy										
Special school	151	83.9	160	100.0	119	100.0	152	100.0	0[a]	–
Regular school	4	2.2	0	–	0	–	0	–	25	32.2
Home instruction	0	–	0	–	0	–	0	–	2	2.8
No school	25	13.9	0	–	0	–	0	–	44	62.0
Total	180	100.0	160	100.0	119	100.0	152	100.0	71	100.0
Months postpartum, 3										
Graduated	11	6.3	5	3.4	9	7.8	5	3.5	1	1.4[a]
In school	130	74.3	125	84.2	98	84.5	123	87.2	22	31.0[b]
Dropped out	34	19.4	18	12.2	9	7.8	13	9.2	48	67.6
Total	175	100.0	148	99.8	116	100.0	141	100.0	71	100.0
Months postpartum, 15										
Graduated	38	23.2	26	20.5	34	32.1	25	20.7	5	7.1[a]
In school	54	32.9	70	55.1	39	36.8	68	56.2	16	22.5[c]
Dropped out	72	43.9	31	24.4	33	31.1	28	23.1	50	70.4
Total	164	100.0	127	100.0	106	100.0	121	100.0	71	100.0
Months Postpartum, 26 mo.										
Graduated	44	29.9	54	44.4	39	41.5	51	45.1	10	14.1[d]
In school	31	21.1	22	18.3	20	21.3	20	17.7	7	9.8[d]
Dropped out	72	49.0	43	36.8	35	37.2	42	37.2	54	76.1[d]
Total	147	100.0	117	100.0	94	100.0	113	100.0	71	100.0

[a] Based on the 71 available school records.

[b] Includes six girls on homebound instruction.

[c] Includes two girls on homebound instruction.

[d] Approximately 6 years postpartum, by interview and/or school records.

Table 6-2. Contrast of Child-Spacing Status by Time of Interview and by Program (Total, "Matched," and Comparison Populations)

	Total				"Matched"					
	YMP		IAS		YMP		IAS		Comparison	
Child Spacing	No.	%	No.	%	No.	%	No.	%	No.	%
Months postpartum, 15										
Not pregnant since index child	123	75.0	102	80.3	85	80.2	97	80.2	44	53.0[a]
Pregnant now	11	6.7	9	7.1	0	–	8	6.6	15	18.0
Pregnancy already terminated	30	18.3	16	12.6	21	19.8	16	13.2	24	28.9
Total	164	100.0	127	100.0	106	100.0	121	100.0	83	100.0
Months postpartum, 26										
Not pregnant since index child	76	52.1	58	50.4	48	51.6	56	50.5	28	33.7
Pregnant now	31	21.2	29	25.2	19	20.4	28	25.2	11	13.2
Pregnancy already terminated	39	26.7	28	24.3	26	28.0	27	24.3	44	53.0
Total	147	100.0	119	100.0	94	100.0	115	100.0	83	100.0

[a] Calculated from dates of delivery in hospital records.

Table 6-3. Cumulative Proportion without Subsequent Termination of Pregnancy, at Specified Months after Index Delivery,[a] by YMP and Comparison Groups

Months after Index Delivery	YMP	Comparison
3	1.00	1.00
6	0.99	0.99
9	0.97	0.96
12	0.91	0.90
15	0.85	0.70
18	0.78	0.57
21	0.69	0.53
24	0.61	0.47
27	0.56	0.39
30	0.44	0.34
33	0.39	0.26
36	0.34	0.25
39	0.28	0.23

[a] To obtain the rate of subsequent termination, subtract figures from 100.

Table 6-4. Number of Children Wanted by Time of Postpartum Interview, YMP

	3 Months		15 Months		26 Months	
Number of Children	No.	%	No.	%	No.	%
1	23	13.2	12	7.5	7	4.8
2	78	44.8	78	49.1	67	45.9
3	42	24.1	34	21.4	31	21.2
4	16	9.2	26	16.4	25	17.1
5	4	2.3	2	1.3	7	4.8
6 or more	6	3.4	6	3.8	5	3.4
Don't know	4	2.3	0	–	4	2.7
Sterile	1	0.6	1	0.6	0[a]	–
Total	175	100.0	160	100.0	146	100.0

[a] The client reported as sterile at 3 and 15 months postpartum does not appear at 26 months because she was not interviewed.

Table 6-5. Confidence in Ability to Limit Childbearing to Number Wanted by Time of Interview, YMP

	3 Months		15 Months		26 Months	
Confidence	No.	%	No.	%	No.	%
Able to limit	118	67.8	118	73.8	118	81.4
Unable to limit	13	7.5	8	5.0	6	4.1
Don't know/ unspecific	42	24.1	33	20.6	21	14.5
Sterile	1	0.6	1	0.6	0[a]	–
Total	174	100.0	160	100.0	145	100.0

[a] See note [a] to Table 6-4.

Table 6-6. Method to be Used in Planning Further Children by Time of Interview, YMP

	3 Months		15 Months		26 Months	
Method	No.	%	No.	%	No.	%
Pill	51	62.2	51	50.0	54	48.2
IUD	7	8.5	10	9.8	18	16.1
Other female birth control	3	3.7	12	11.8	14	12.5
Combination birth control	19	23.2	27	26.5	26	23.2
Male birth control	1	1.2	1	1.0	0	–
Sterile	1	1.2	1	1.0	0[a]	–
Total	82[b]	100.0	102[b]	100.0	112[b]	100.0

[a] See note [a] to Table 6-4.

[b] The totals are fewer than those who in Table 6-5 were confident they could limit childbearing, because not all gave specific reasons for their confidence (e.g. some said, "just will").

Table 6-7. Contrast of Employment Status by Time of Interview and by Program (Total, "Matched," and Comparison Populations)

	Total				"Matched"					
	YMP		IAS		YMP		IAS		Comparison	
Employment	No.	%	No.	%	No.	%	No.	%	No.	%
Months postpartum, 3										
Currently employed	34	19.4	23	15.5	24	20.7	21	14.8		
Employed since del. but not now	29	16.6	3	2.0	21	18.1	3	2.1		
Never employed since delivery	112	64.0	122	82.4	71	61.2	118	83.1		
Total	175	100.0	148	100.0	116	100.0	142	100.0		
Months postpartum, 15										
Currently employed	50	30.5	51	40.2	40	37.7	49	40.5		
Employed since del. but not now	66	40.2	43	33.9	41	38.7	42	34.7		
Never employed since delivery	48	29.3	33	26.0	25	23.6	30	24.8		
Total	164	100.0	127	100.0	106	100.0	121	100.0		
Months postpartum, 26										
Currently employed	46	32.2	35	30.4	35	38.5	35	31.5	11	28.9[a]
Employed since del. but not now	63	44.1	59	51.3	40	44.0	57	51.4	19	50.0
Never employed since delivery	34	23.8	21	18.3	16	17.6	19	17.1	8	21.0
Total	143	100.0	115	100.0	91	100.0	111	100.0	38	100.0

[a] Approximately six years postpartum, by interview.

Table 6-8. Current Employment Variables by Time of Interview, YMP

	3 Months		15 Months		26 Months	
	No.	%	No.	%	No.	%
Type of employment						
Secretarial/clerical	7	20.6	11	23.4	16	34.8
Factory	5	14.7	6	12.8	9	19.6
Hospital	5	14.7	7	14.9	7	15.2
Sales	4	11.8	5	10.6	9	19.6
Other	13	38.2	18	38.3	5	10.9
Total	34	100.0	47	100.0	46	100.0
Hours/week working						
15 hours or less	5	15.6	4	8.5	3	6.5
16–30	13	39.4	16	35.6	6	13.0
31–40	13	39.4	20	44.4	36	78.3
41 or more	0	–	3	6.4	0	–
Irregular hours	2	6.1	2	4.3	0	–
Total	33	100.0	45	100.0	45	100.0
Feeling about job						
Positive	24	70.6	37	80.4	37	80.4
Mixed	1	2.9	5	10.9	2	4.4
Negative	9	26.5	4	8.7	7	15.2
Total	34	100.0	46	100.0	46	100.0
Care of baby						
Mother in household	15	46.9	19	39.6	18	39.1
Other in household	5	15.6	6	12.5	10	21.7
Someone comes to household	0	–	4	8.3	5	10.9
Outside household	7	21.9	13	27.1	8	17.4
Other	0	–	1	2.1	1	2.8
Combination	5	15.6	5	10.4	4	8.7
Total	32	100.0	48	100.0	46	100.0

Table 6-9. Reasons for Terminating Past Employment and Type of Past Employment by Time of Interview, YMP

	3 Months		15 Months		26 Months	
	No.	%	No.	%	No.	%
Reasons for stopping work						
Baby-related	7	26.9	7	10.8	5	10.2
School-related	0	–	1	1.5	1	2.0
Marriage-related	0	–	4	6.1	1	2.0
Combination baby, school, & marriage	1	3.9	0	–	0	–
Job difficult or disliked	3	11.5	9	13.9	5	10.2
Other job-related reasons	1	3.9	10	15.4	4	8.2
Other	14	53.9	34	52.3	33	67.4
Total	26	100.0	65	100.0	49	100.0
Type of employment						
Secretarial/clerical	4	15.4	2	3.1	7	13.0
Factory	8	30.8	23	35.4	15	27.8
Hospital	2	7.7	10	15.4	10	18.5
Sales	1	3.9	4	6.2	6	11.1
Restaurant	3	11.5	4	6.2	6	11.1
Job training	0	–	2	3.1	1	1.9
Temporary jobs	6	23.1	11	16.9	9	16.7
Other	2	7.7	9	13.9	0	–
Total	26	100.0	65	100.0	54	100.0

Table 6-10. Contrast of Marital Status (Total, "Matched," and Comparison Populations)

	Total				"Matched"				Comparison	
	YMP		IAS		YMP		IAS			
Marital Status	No.	%	No.	%	No.	%	No.	%	No.	%
Months postpartum, 3										
Married	13	7.4	9	6.1	7	6.0	7	4.9		
Unmarried	162	92.6	139	93.9	109	94.0	135	95.1		
Total	175	100.0	148	100.0	116	100.0	142	100.0		
Months postpartum, 15										
Married	32	19.5	16	12.6	17	16.0	13	10.7		
Separated or divorced	4	2.4	1	0.8	2	1.9	0	–		
Unmarried	128	78.0	110	86.6	87	82.1	108	89.3		
Total	164	100.0	127	100.0	106	100.0	121	100.0		
Months postpartum, 26										
Married	43	29.3	19	16.2	26	27.7	17	15.0	17	44.7[a]
Separated or divorced	3	2.0	9	7.7	1	1.1	8	7.1	1	2.6
Unmarried	101	68.9	89	76.1	67	71.3	88	77.9	20	52.6
Total	147	100.0	117	100.0	94	100.0	113	100.0	38	100.0

[a] Approximately 6 years postpartum, by interview.

Table 6-11. Frequency Distribution of Life Styles at 26 Months Postpartum, YMP and IAS

	YMP		IAS	
	No.	%	No.	%
School + no pregnancy (success)	51	35.0	42	37.1
School + pregnancy (partial success)	24	16.4	29	25.6
Dropout + no pregnancy (partial success)	25	17.1	15	13.2
Dropout + pregnancy (nonsuccess)	46	31.5	27	24.0
Total	146	100.0	113	100.0

Table 6-12. Young Mothers' Appraisal of How They Are Getting Along at 26 Months Postpartum by Life Style, YMP and IAS

	Life Style (Two Factors)									
	School + Not Preg.		School + Pregnancy		Dropout + Not Preg.		Dropout + Pregnancy		Total	
Appraisal	No.	%	No.	%	No.	%	No.	%	No.	%
					YMP					
Very well	10	19.6	2	8.3	2	8.0	8	17.4	22	15.1
Fairly well	41	80.4	19	79.2	19	76.0	30	65.2	109	74.7
Not too well	0	–	2	8.3	3	12.0	7	15.2	12	8.2
Poorly	0	–	1	4.2	1	4.0	1	2.2	3	2.0
Total	51	100.0	24	100.0	25	100.0	46	100.0	146	100.0
					IAS					
Very well	5	11.9	3	10.3	3	20.0	3	10.7	14	12.3
Fairly well	29	69.0	22	75.9	7	46.7	18	64.3	76	66.7
Not too well	6	14.3	3	10.3	5	33.3	7	25.0	21	18.4
Poorly	2	4.8	1	3.4	0	–	0	–	3	2.6
Total	42	100.0	29	100.0	15	100.0	28	100.0	114	100.0

Table 6-13. Life Styles and Marriage at 26 Months Postpartum, YMP and IAS

	Marital Status							
	YMP				IAS			
	Single		Ever Married		Single		Ever Married	
Life Style (2 factors)	No.	%	No.	%	No.	%	No.	%
School + not pregnant (success)	44	86.3	7	13.7	35	83.3	7	16.7
School + pregnancy (partial success)	17	70.8	7	29.2	21	72.4	8	27.5
Dropout + not pregnant (partial success)	17	68.0	8	32.0	13	86.7	2	13.3
Dropout + pregnancy (nonsuccess)	22	47.8	24	52.2	17	63.0	10	37.0
Total	100	100.0	46	100.0	86	100.0	27	100.0

Table 6-14. Life Styles and Employment, YMP and IAS

	YMP				IAS			
	Yes		No		Yes		No	
Life Style (2 factors)	No.	%	No.	%	No.	%	No.	%
	Employed, 26 Months Postpartum							
School + not pregnant (success)	34	68.0	16	32.0	20	48.8	21	51.2
School + pregnancy (partial success)	3	13.0	20	87.0	4	14.3	24	85.7
Dropout + not pregnant (partial success)	6	25.0	18	75.0	7	46.7	8	53.3
Dropout + pregnancy (nonsuccess)	3	6.7	42	93.0	3	10.7	25	89.3
Total	46	100.0	96	100.0	34	100.0	78	100.0
	Employed, any Time Postpartum							
School + not pregnant (success)	45	90.0	5	10.0	36	87.8	5	12.2
School + pregnancy (partial success)	18	78.3	5	21.7	23	82.1	5	17.9
Dropout + not pregnant (partial success)	15	62.5	9	37.5	12	80.0	3	20.0
Dropout + pregnancy (nonsuccess)	30	66.7	15	33.3	20	71.4	8	28.6
Total	108	100.0	34	100.0	91	100.0	21	100.0

Table 6-15. Life Styles and Welfare Status at 26 Months Postpartum, YMP

Life Style (2 factors)	Welfare Status					
	Welfare Only		Welfare + Other		No Welfare	
	No.	%	No.	%	No.	%
School + not pregnant (success)	1	2.0	24	47.1	26	51.0
School + pregnancy (partial success)	4	16.7	14	58.3	6	25.0
Dropout + not pregnant (partial success)	1	4.0	15	60.0	9	36.0
Dropout + pregnancy (nonsuccess)	9	19.6	23	50.0	14	30.4
Total	15	100.0	76	100.0	55	100.0

Table 6-16. Life Styles and Welfare Status at 26 Months Postpartum, IAS

Life Style (2 factors)	Welfare Only		Welfare + Other		No Welfare	
	No.	%	No.	%	No.	%
School + not pregnant (success)	11	26.8	10	24.4	20	48.8
School + pregnancy (partial success)	10	34.5	12	41.4	7	24.1
Dropout + not pregnant (partial success)	8	53.3	4	26.7	3	20.0
Dropout + pregnancy (nonsuccess)	11	39.3	14	50.0	3	10.7
Total	40	100.0	40	100.0	33	100.0

Welfare Status

7 Factors Related to the Attainment of Program Goals

Findings in earlier chapters suggested that the special programs had a considerable amount of short-term influence in assisting young mothers to attain the objectives that guided the program, but they did not have as much long-term impact. The quasi-experimental design on which the conclusion was based can not provide definitive proof. In this chapter two other approaches will be used to determine whether a cause-and-effect relationship existed between one special program[1] and the observed results at several points in time. The strength of association between the independent and program variables and the dependent (outcome) variables will be studied at three postpartum time periods by means of several techniques.

Association between Independent and Program Variables and Outcomes

Independent Variables. *Demographic and economic variables:* Demographic and economic variables had surprisingly little association with the dependent variables of education, subsequent pregnancy, employment, and source of income at any of the three time periods.[2] The only associations unlikely to have occurred by chance involved welfare status at registration. Those on welfare then were likely to be on welfare after delivery also and were somewhat less likely than those not on welfare to show educational success at 26 months postpartum.

The demographic and economic variables which other studies have found significant probably had less impact here because of the homogeneity of the population. This was the result of the study design (those in the study had to meet certain criteria) and of cultural differences (those of different economic status who became pregnant tended to deal with the problem in other ways and did not attend the Young Mothers Clinic.)

This finding simplifies the analysis. In most studies with a heterogeneous population, determining cause and effect from statistical associations is difficult since the strong effects of these economic variables are hard to eliminate from the analysis (i.e. they make too much "noise" for subtler influences to be heard). Their minimal effects in this study mean that these variables will not be likely to confound subsequent associations. Nevertheless, care still must be taken since a statistical association between program participation and program success might be explained by other types of preexisting characteristics, such as educational status and motivation (Fig. 7-1).

Educational variables: Four variables measure a girl's educational functioning at the time she registered for the YMP: whether she was in school or had dropped

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[1] These analyses are run for the YMP only because many more types of data were available for that group, particularly measures of program participation.

[2] A detailed discussion of the tests used is given in Appendix E.

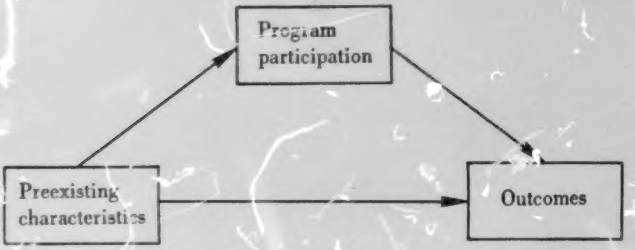

Fig. 7-1. Possible Paths of Impact of Preexisting Characteristics on Outcomes

out, whether she was in the appropriate grade for her age, her grade, and her stated educational goals. In contrast to the demographic and economic variables, these variables had consistently strong associations with educational success and employment and some associations with subsequent pregnancy and economic independence.

Program Variables. *Quantity of contact:* The variables measuring quantity of program contact in education[3] and in social service[4] tended to have a strong influence on education and employment in the early postpartum period but a declining or absent influence at the end of the study period. Educational contact was more important than social service contact for educational success, but social service contact had more impact on employment status. None of the measures of quantity of program contact had strong association with subsequent pregnancy or economic independence.

Acceptance of services: The measures of acceptance of program services in education (percent attendance at the McCabe Center) and in the social services (percent attendance at social-work group sessions, appropriate use of services, and response to recommendations) had a mixed pattern of associations. When a significant association with an outcome variable appeared, it tended to hold over time. In some cases, however, as in the appropriate use of social worker and response to recommendations, few significant associations appeared.

Associations with Education

Educational Status at Registration. The associations between the measures of educational status at registration and postpartum educational success are strong. After an initial decrease between three and fifteen months postpartum, the size of the difference between the means of educational status at registration in the success and nonsuccess group holds constant (Table 7-1). The measures of school status at registration apparently reflect qualities inherent in the young mother, such as motivation and/or ability, which exert a fairly constant influence on her likelihood of achieving educational success. To the extent that these variables influence the achievement of program goals, the program cannot be given all the credit. The program may have provided a necessary although not sufficient element, i.e. even the motivated have difficulty attending a school in which they are not welcome.

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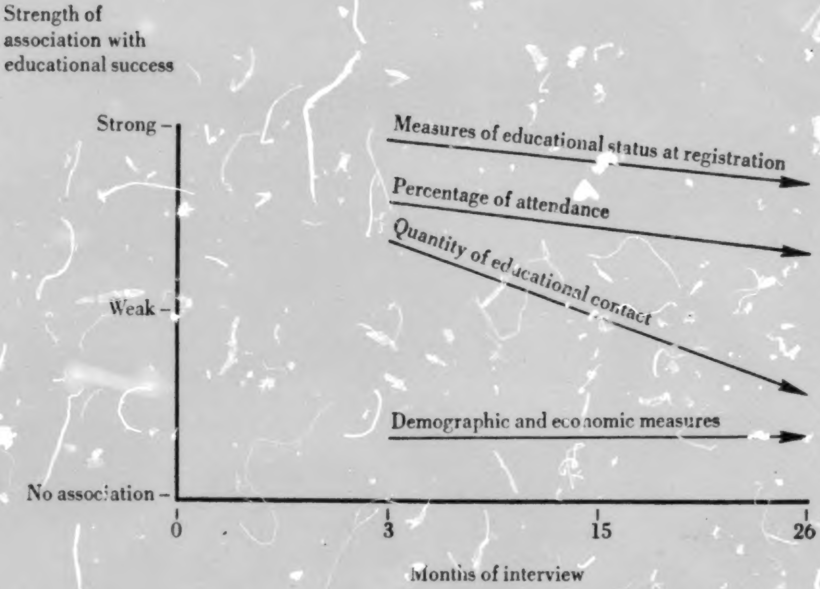
[3] Whether or not the girls attended the McCabe Center and, if so, the number of days attended.

[4] The number of individual social work interviews and the number of antepartum group sessions attended.

Fig. 7-2. Change in Strength of Association over Time between Several Types of Variables and Educational Success



Program Variables. *Quantity of program contact:* A strong association was noted at three months postpartum between the measures of educational contact, e.g. attendance at McCabe and the probability of being an educational success (Table 7-2), but the strength of association consistently diminished over time. This supports the conclusion that the special programs had a strong short-term educational impact but a weaker long-term impact.

These data also support the assertion that the programs had an effect independent of the preexisting characteristics. If the associations between quantity of contact and outcomes were due to the preexisting educational characteristics, the former associations also should have maintained their strength over time. The fact that the two types of variables (educational status, quantity of contact) behave differently suggests that they measure different effects, at least in part (Fig. 7-2).[5]

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[5] Since once a young mother graduated from high school she remained permanently in the "educational success" category, it might be more reasonable to determine if these relationships hold at each point in time postpartum for those who had not graduated at the previous point in time. One difficulty with this kind of analysis is that the sample size declines rapidly, with a resulting instability in the statistical tests. The results of such an analysis for those who were educational successes (but not graduated) at three months suggests that the strength of association does fall more rapidly over time for every variable when the graduates are removed from further consideration, but the preexisting educational variables still maintain their strength of association much better than does the quantity of contact with the program. This analysis, therefore, supports the main point previously mentioned, i.e. that the two types of variables behave differently and therefore measure different things.

Acceptance of services: The actual number of days a girl could attend the McCabe Center was somewhat beyond her control since it was determined partially by how near to term she delivered and by the time of year when she delivered (e.g. those who delivered in early fall could attend fewer days because McCabe classes were not held during the summer). The *percentage* of the eligible days she actually attended was largely under her control, however, and this figure may reflect her basic educational motivation. The percentage of eligible days attended, therefore, was expected to (and did) behave over time more like the measures of school status at registration than the measures of quantity of participation; i.e. the strength of the association was maintained fairly well over time (Table 7-3 and Fig. 7-2).

Associations with Subsequent Pregnancy

Independent Variables. No statistically significant associations could be found between the demographic or economic variables and subsequent pregnancy at either 15 or 26 months postpartum. In addition only one statistically significant association was found between the variables measuring school status at registration and subsequent pregnancy; those in school at registration were less likely to have a subsequent pregnancy by 15 months ($p < 0.01$). This association was not significant by 26 months, however.

Program Variables. *Quantity of program contact:* Attending McCabe appeared to have a weak effect in reducing rapid subsequent pregnancies (by 15 months postpartum), but this was statistically significant only if fertility was trichotomized,[6] and it did not hold at the last interview period. In a similar manner, the number of days of attendance at McCabe influenced the 15-month postpartum status, but not the 26-month status. Those who attended more days were less likely to have a subsequent pregnancy by 15 months postpartum ($p < 0.05$). Attending the antepartum social-work group sessions (for those assigned) was associated with avoiding rapid subsequent pregnancies ($p < 0.05$), but this effect also disappeared by 26 months postpartum.

Acceptance of services: The only strong associations between program variables and subsequent pregnancy involved the percentage attendance at the McCabe Center (Table 7-4). Since percentage attendance apparently reflects educational motivation and/or ability, the data suggest that these characteristics are important in avoiding rapid subsequent pregnancy, and probably more important than the quantity of contact with the special programs.

Associations with Employment

Independent Variables. A somewhat similar pattern of association was found between the independent and program variables on the one hand and employment status at interview on the other. Significant and reasonably constant associations were found between employment and the three measures of school status at registration but not with the demographic and economic variables (Table 7-5). Those in school (or graduated) were more likely to be working.

Program Variables. Merely attending McCabe did not appear to influence employment. Among those who attended McCabe, however, the better the attendance the more likely they were to be working at 15 months (Table 7-6); this did not hold for 26 months. Those who attended more social-work group sessions were even more likely to be working at 15 months, but by 26 months postpartum the association was no longer statistically significant. The percent attendance at McCabe School maintained a strong association with employment throughout the study period, whereas the percent attendance at group sessions did not. Two alternative explanations may be offered: the percent attendance at the McCabe Center may reflect something in the young mothers-to-be that predisposed to success in both institutional "establishment" settings (school and job); or the school and the social service program may have assisted the young mother to find employment by improving her skills and/or self-confidence.

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[6] No subsequent pregnancy/pregnant but not terminated/already terminated.

Associations with Economic Independence

Independent Variables. No demographic variable, and only one economic variable (welfare status at registration), was associated with economic independence[7] at 15 and 26 months postpartum. As might be expected, the strength of the association decreased over time as more young mothers established their independence, which often included marriage and/or employment.

Program Variables. The only participation variables associated with economic independence were the number and the percentage of days the girls attended the McCabe Center (the same variables most strongly associated with avoiding subsequent pregnancies). These associations, however, were only with economic independence at 26 months postpartum. Apparently several years had to elapse during which the girls matured and perhaps finished school and/or married before the effect of their personal characteristics, combined with the input from the special programs, could be demonstrated in the economic area.

Path Analyses

The study of a complex social situation requires relating many independent variables to each other and to the dependent variables. The multiple regression technique makes possible the determination of the proportion of the total variation in a dependent variable explained by each of the independent variables, beyond that explained by the other variables in the equation. When multiple regression is applied to a series of presumed causal pathways, an estimate is obtained of the relative importance of each pathway. This application to a causal model is called path analysis (Turner and Stevens, 1959; Duncan, 1966). (Methodological aspects of these techniques are discussed in more detail in Appendix E.)

Although the determination of causation can be difficult (Blalock, 1962; Goldberg, 1966), this study simplified the process by collecting data at various points in time. It was assumed that only variables which preceded a young mother's status in time could cause that status. One limitation of this approach is that other dependent variables measured at the same point in time had to be excluded because a causal direction could not be assumed with certainty. Inability to handle statistically the interaction among simultaneous life-status variables limits somewhat the total amount of variation in a dependent variable that can be explained. For most of the outcome variables, however, enough variation could be explained to provide interesting insights into causal factors.

Education. In order to apply path analysis to educational success, four measures of school status at registration, several measures of attendance at the special program, and school status at 3 months, 15 months, and 26 months postpartum were arranged sequentially with arrows indicating the direction of possible effect (Fig. 7-3). Being

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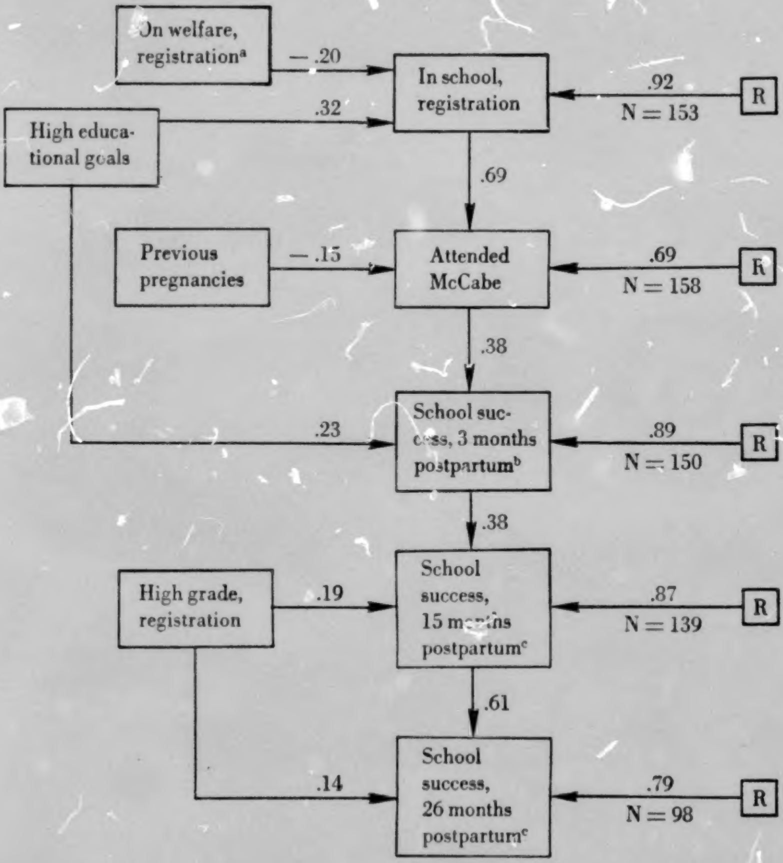
[7] This dependent variable was trichotomized: independent of welfare/welfare and other income/welfare only.

Fig. 7-3. Path Analysis of Factors Associated with School Success, Full YMP Sample


On welfare, registration[a]
—.20
In school, registration
.92
N = 153
R
High educational goals
.32
.69
Previous pregnancies
—.15
Attended McCabe
.69
N = 158
R
.38
.23
School success, 3 months postpartum[b]
.89
N = 150
R
.38
High grade, registration
.19
School success, 15 months postpartum[c]
.87
N = 139
R
.61
.14
School success, 26 months postpartum[c]
.79
N = 98
R

R = residual unexplained variation in this and subsequent figures.

[a] In this and subsequent figures the direction of the association is indicated by the labeling on the boxes. This was done to facilitate understanding, but each box actually represents a variable (e.g. from being on welfare to being off welfare, or from high to low educational goals).

[b] School success means being in school or having graduated, in this and subsequent figures.

[c] Based on all except those who have graduated previously.

in school at registration may have predicted whether or not a girl attended the McCabe Center, which in turn predicted whether or not she returned to school postpartum, and so on. Variables besides prior school status which might predict subsequent school success, such as the demographic and economic variables, participation in the program, and outcome measures at the previous time period, were also entered into the equations.

The path in Figure 7-3 was constructed so that at each point all the study subjects on whom data were available for both time periods were used except those who permanently fell into the "success" category by virtue of graduation; these were removed from the subsequent step. Thus, the school status at 15 months postpartum was determined for those who had not graduated at 3 months postpartum, and the 26-month school status for those who had not graduated by either the 3- or 15-month interviews. The data shown, therefore, answer the question, "Given that they were still in school or had dropped out at one period, what factors determined whether or not they were in school or graduated at the next?"

Path analysis provided insights into why a girl was still in school at registration, although the sampling method was not ideal to answer this question. Among the variables available, the educational goals related most strongly to school status at registration: those with higher goals were more likely to be in school. Welfare status, however, had a negative impact on school status at registration, for unknown reasons.

The primary factor influencing McCabe attendance was school status at registration. Most who were in school at the time they registered for care enrolled at McCabe. The strength of this influence is shown by the high path coefficient at the arrow. The number of previous pregnancies also influenced attendance, those with previous pregnancies being less likely to attend McCabe. Since only a few mothers ha previous pregnancies, the path coefficien is relatively weak, but in some individua cases pregnancy may have been a decidin factor. Educational goals also influence whether or not a girl attended the McCab Center, but largely through influencin whether she was still in school at registration.

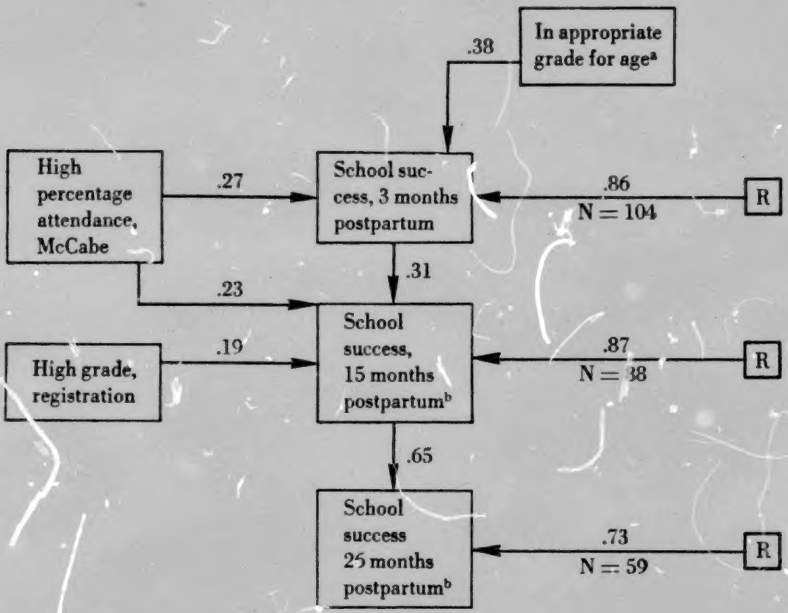
The strongest predictor of returning t school postpartum was attending the special school, although educational goals ha a definite additional effect.

At both 15 and 26 months postpartu the preexisting school status was the mos important predictor of subsequent schoo status. McCabe attendance still had statistically significant independent impac on 15-month postpartum school success but this had disappeared by 26 month postpartum. Educational goals had weak partial correlations with school succes after prior school status was entered, although both educational goals and McCab attendance had statistically significant first order correlations with this outcome variable. These observations are interpreted t mean that the impact of educational goal and McCabe attendance on school succes was mostly channeled through keeping girl in school rather than in returnin dropouts to school.

Girls in the higher grades (11 and 12) were somewhat more likely to be educational successes, presumably because the were closer to the goal of graduation. I summary, the first path analysis shows tha the most powerful predictor of subsequen school status at any point in time was th school status at the previous point o measurement, although educational goals grade, and McCabe attendance also ha additional effects.

The only measure of program participation in the educational path in Figure 7-3 was attendance at McCabe. The other participation variables could not be included without removing from consideration al

Fig 7-4. Path Analysis of Factors Associated with School Success, McCabe Attenders Only


In appropriate grade for age[a]
.38
High percentage attendance, McCabe
.27
School success, 3 months postpartum
.86
N = 104
R
.31
.23
High grade, registration
.19
School success, 15 months postpartum[b]
.87
N = 38
R
.65
School success 25 months postpartum[b]
.73
N = 59
R

[a] See note [a] in Fig. 7-3.

[b] Based on all who attended McCabe except those who have graduated previously.

the study subjects who did not attend the special school.[8] Therefore, another path analysis on education was run only for those who *did* attend the McCabe Center; the results of this are shown in Figure 7-4. Among this group, the appropriateness of grade to age and the percent attendance at McCabe contributed to school status at 3 and at 15 months postpartum. Those who were not behind grade in school, and those who attended a greater percentage of the days at McCabe, were more likely to return to school postpartum and still to be in school at 15 months.

In summary, motivation and being in a high and appropriate grade were important in school success, but the most important factor among those included in this study was the preexisting school status. This suggests that special efforts should be made to keep pregnant girls and young mothers in school at all periods. The most crucial point for more effort now appears to be the first year postpartum, during which about 30% of those who returned to school dropped out again (Appendix H). The dropout rate was less thereafter. Perhaps the young mothers need more help in adjusting to their new role. Since an important reason for dropping out was difficulty with baby care, a successful follow through program aimed at helping young mothers remain in scho probably would have to include day care.

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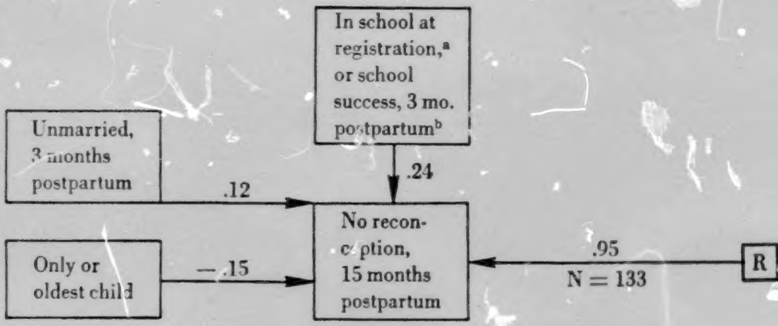
[8] The multiple regression technique requires data to be available for every subject on every variable included in the equation. Since those who did not attend the McCabe Center had no meaningful data on, for example, the "percent attendance at the McCabe School," they would automatically be eliminated from any equation where this variable was entered. Therefore, to include all the mothers in the sample, these variables had to be omitted.

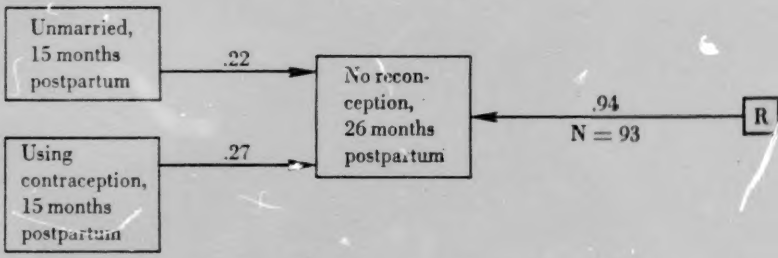
Subsequent Pregnancies. Two separa path analyses were also necessary to sho the factors influencing subsequent pre nancies among all YMP participants (Fi 7-5). Because the factors leading to a rapi subsequent pregnancy might be differe from those predisposing to reconception

Fig. 7-5. Path Analyses of Factors Associated with Subsequent Pregnancy at 15 and 26 Months Postpartum, Full YMP Sample

A. 15-Month Postpartum Pregnancy Status


In school at registration,[a] or school success, 3 mo. postpartum[b]
.24
Unmarried, 3 months postpartum
.12
Only or oldest child
—.15
No reconception, 15 months postpartum
.95
N = 133
R

B. 26-Month Postpartum Pregnancy Status[c]


Unmarried, 15 months postpartum
.22
Using contraception, 15 months postpartum
.27
No reconception, 26 months postpartum
.94
N = 93
R

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[a] See note [a] in Fig. 7-3.

[b] Both variables had about equal effect.

[c] Based on those without reconception at 15 months postpartum.

a later date, one analysis was run for all study subjects to determine factors associated with reconceptions by 15 months postpartum, and a second to determine why those not pregnant by 15 months conceived again by 26 months. The most important overall observation is that, in contrast to educational status, the variables used in this study had only a small influence on subsequent pregnancies. All the independent and program variables shown in Appendix D were studied. Therefore, the lack of explanatory power reflects a weakness in the variables themselves.

Although the postpartum prescription and use of contraceptives were entered as variables into these analyses, they were not strong predictors of pregnancy at 15 months. This may be due to compliant answers, i.e. the respondent gave the answer she felt the interviewer would approve, or to the fact that use of contraceptives at one time may not be a good predictor of use at other times. Return to school postpartum was the most important correlate of delaying rapid reconception; this is consistent with findings reported earlier based on other analytical techniques (Jekel et al., in press). The use of contraceptives became more important at 26 months (Fig. 7-5, B), but even then its influence was weak. Neither the prescription of contraceptives nor their reported use at a point in time could be equated with extended use-effectiveness in this population. Others have emphasized this and have pointed to the central importance of social and psychological factors (Bracken et al., 1972a, 1972b). This study did not gather sufficient data in these areas to clarify the major factors in use-effectiveness. Until more adequate knowledge is available, contraceptives that do not require ongoing participation of young mothers may have important advantages (e.g. IUCD's).

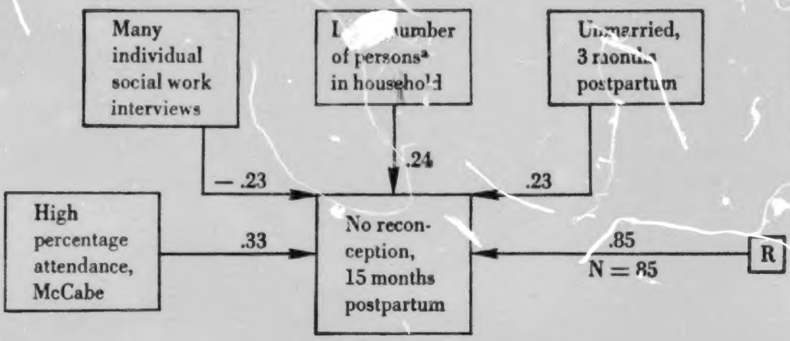
Marital status did not have a strong influence early, perhaps because relatively few young mothers married in the first year, but a trend began that could be seen more clearly in the second path. Those who stayed single were less likely to have subsequent pregnancies, probably because of less sexual exposure. Also, those who were only or oldest children were somewhat more likely to have rapid subsequent pregnancy. This may be related to the fact that they were, on the average, in smaller households and may have had more opportunity to be alone and unsupervised; the importance of size of household is seen more clearly in Figure 7-6.

In order to investigate the contribution of participation in the special program, path analyses were repeated for only those who attended the McCabe Center (Fig. 7-6). Marital status at three months was also an important factor for this group, the single girls being less likely to conceive. One additional demographic variable was statistically significant: the more members in the household, the less likely a young mother was to have a subsequent infant, as mentioned above. Two measures of participation appear somewhat important in rapid subsequent pregnancies: percentage attendance at McCabe and number of social work interviews. The higher the proportion of eligible days a girl attended the special school, the less likely she was to have a subsequent pregnancy. This may be related to greater educational motivation, to less opportunity for sexual activity, or to some other factor. The larger number of individual social work interviews among young mothers with early reconceptions suggests that the social workers were aware of girls who were likely to have problems and worked more extensively with them.

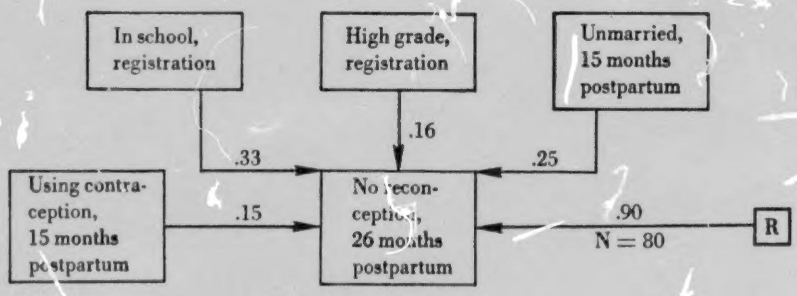
School factors were important in predicting which of those who avoided a rapid reconception also could avoid one by 26 months. The girls who were in school and/or in a high grade at registration were less likely to have subsequent pregnancies. This is probably related to educational motivation or ability. Marital status at 15 months was the next most important predictor of

Fig. 7-6. Path Analyses of Factors Associated with Subsequent Pregnancy, McCabe Attenders Only

A. 15-Month Postpartum Pregnancy Status


Many individual social work interviews
L[illegible] number of persons[a] in household
Unmarried, 3 months postpartum
−.23
.24
.23
High percentage attendance, McCabe
.33
No reconception, 15 months postpartum
.85
N = 85
R

B. 26-Month Postpartum Pregnancy Status

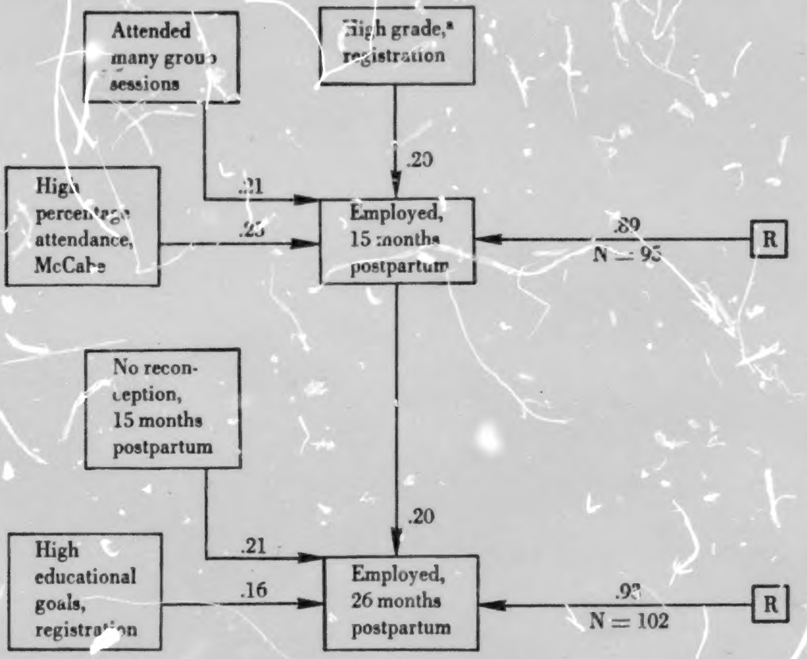

In school, registration
High grade, registration
Unmarried, 15 months postpartum
.33
.16
.25
Using contraception, 15 months postpartum
.15
No reconception, 26 months postpartum
.90
N = 80
R

[a] See note a in Fig. 7-3.

subsequent pregnancies: those who were married had more subsequent babies. Barely significant was the reported use of contraceptives at 15 months. In this study, measures of educational and marital status were consistently more important predictors of subsequent pregnancy than reported use of contraceptives, although no single factor was uniquely important. Thus, the study was not able to identify the primary factors that determine whether or not the young mothers had subsequent pregnancies. This complex personal decision was far less predictable than school success.

Employment. The variables which measured school status at the time of registration were important predictors of employment status (Fig. 7-7).[9] The girls who were high school juniors or seniors, and those

Fig. 7-7. Path Analysis of Factors Associated with Employment, McCabe Attenders Only


Attended many group sessions
High grade,ᵃ registration
.20
.21
High percentage attendance, McCabe
.23
Employed, 15 months postpartum
.89
N = 95
R
No reconception, 15 months postpartum
.20
.21
High educational goals, registration
.16
Employed, 26 months postpartum
.93
N = 102
R

ᵃSee note ᵃ in Fig. 7-3.

with high educational goals, were somewhat more likely to be working. Two measures of program participation also were predictive of working: the number of social-work group sessions attended and the percent attendance at McCabe. Thus these findings reported earlier in this chapter hold after the effects of other variables have been controlled.

Other findings were that those who did not have subsequent pregnancies by 15 months and those who had been working at 15 months were more likely to be working at 26 months postpartum. Since the influence of all of these variables was weak, apparently the majority of explanatory factors were not identified by this study. As with subsequent pregnancy, employment is a very personal decision which is a part of the total life style.

Economic Independence. The independent and program variables had a relatively

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9. The paths showing association with employment at 15 and 26 months postpartum for the full sample and for only McCabe attenders were similiar to each other, the primary difference being that the one for McCabe attenders included the added explanatory power of the participation measures. Therefore, only the path for McCabe attenders is shown (Fig. 7-7).

weak influence on the source of income[10] at 15 months postpartum. Those who were married by three months postpartum were most likely to be economically independent, presumably due to income of the husband. Those who were in a higher grade at registration were somewhat more likely to be economically independent, probably because older girls were more likely to be married and/or working. Those who attended the special school a high proportion of the time for which they were eligible were more likely to be partially or completely independent, as were those who were not on welfare at the time of registration.

The study variables had a stronger influence at 26 months postpartum. This was partially due to the fact that the 15-month source of income was a strong predictor of subsequent income status (those who were economically independent at 15 months postpartum tended to remain so, and vice versa). Moreover, the influence of the percent attendance at McCabe became stronger. Whatever was accomplished through school participation took a while to be revealed. The same appeared to apply to participation in the social-work group sessions, which explained almost as much as did prior economic status. The more group sessions attended, the more likely the young mother was to be economically independent. Despite this finding, those who were partially or completely independent economically were less likely to have been rated by the social worker as using her services adequately. The meaning of this is not clear, but the social workers may have achieved more in the lives of these young mothers than they realized. By 26 months postpartum, age at registration had a slightly negative effect on economic independence, as did having had a rapid subsequent pregnancy. Subsequent pregnancy would probably have had a more strongly negative effect if it were not also associated with marriage, which had a positive effect (Fig. 7-8).

Summary. The path analysis generally supports the findings reported in chapter 6 and in the first part of this chapter. Demographic and economic variables were not important predictors of outcomes, but the variables measuring school status at the time of registration frequently were. Variables measuring the quantity of program input were more important early than over the long run, although in the case of economic independence the input from social service appeared to be important at 26 months postpartum.

In education and source of income, the best predictor of subsequent status was previous status, which has implications for planning. Educational programs should make every effort to provide continuity and keep young mothers from interrupting their schooling, unless the system is prepared to offer the option of adult high school for mothers who choose to finish childbearing first and then complete their education.

In the path analysis, the most important factors predicting status on a given outcome variable at one point in time were frequently different from those at other points in time, suggesting that the factors responsible for achievement changed with time, and that assistance for young mothers must be individualized at each point in time.

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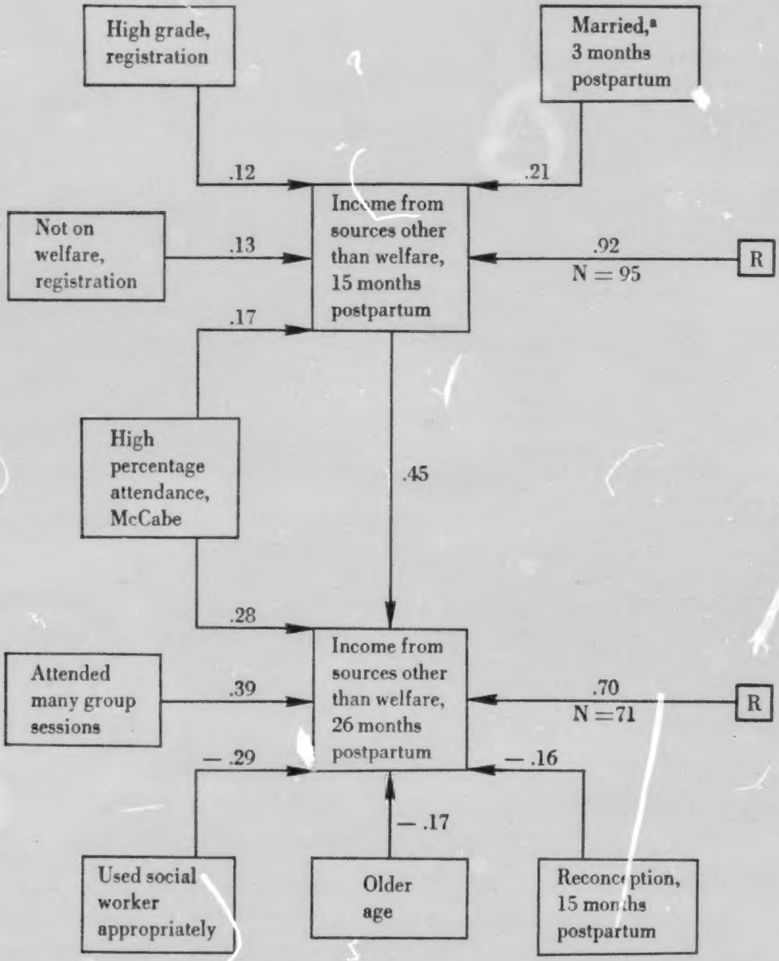
[10] The dependent variable for this analysis was trichotomized into those fully dependent on welfare/those with mixed welfare and other support/those fully free of public support.

Fig. 7-8. Path Analysis of Factors Associated with Economic Independence at 15 and 26 Months Postpartum, McCabe Attenders Only


High grade, registration
Married,[a] 3 months postpartum
.12
.21
Not on welfare, registration
.13
Income from sources other than welfare, 15 months postpartum
.92
N = 95
R
.17
High percentage attendance, McCabe
.45
.28
Attended many group sessions
.39
Income from sources other than welfare, 26 months postpartum
.70
N = 71
R
— .29
— .16
— .17
Used social worker appropriately
Older age
Reconception, 15 months postpartum

[a]See note [a] in Fig. 7-3.

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Jekel, J. F., Klerman, L. V., and Bancroft, D.R.E. "Factors Associated with Rapid Subsequent Pregnancies among School-age Mothers." *American Journal of Public Health,* in press.

Turner, M. E., and Stevens, C. D. "The Regression Analysis of Causal Paths." *Biometrics, 15* (1959), 236–58.

Table Association[a] between Independent Variables Describing Educational Status at Registration and Educational Success by Time of Interview, YMP

	Postpartum Interview		
Test of Significance	3 Months (N = 175)	15 Months (N = 164)	26 Months (N = 147)
In school at registration[b]			
r_b	0.519	0.331	0.330
t	7.990	4.460	4.216
Difference between means	0.488	0.254	0.252
In appropriate grade			
r_b	0.291	0.263	0.301
t	3.998	3.474	3.798
Difference between means	0.284	0.208	0.239
High educational goals			
r_b	0.359	0.302[c]	0.306
t	4.958	3.948	3.757
Difference between means	0.533	0.364	0.358

[a] As measured by the biserial correlation coefficient ("r_b"), the value for t, and the difference in the means of the independent variables (as coded) in the "success" and "failure" groups. For a discussion of the use of these tests see Appendix E.

[b] The association is statistically significant at the 0.001 level for r_b and t, except in a single instance, as noted.

[c] The association is statistically significant at the 0.01 level.

Table 7-2. Association[a] between Quantity of Program Contact and Educational Success by Time of Interview, YMP

	Postpartum Interview		
	3 Months	15 Months	26 Months
Attended McCabe Center			
r_b	0.455[b]	0.350[c]	0.208[d]
t	6.728[b]	4.750[b]	2.567[d]
Difference between means	0.422	0.265	0.157
Number of days attended McCabe (attenders only)			
r_b	0.254[c]	0.241[d]	0.203[d]
t	3.032[c]	2.858[c]	2.260[d]
Difference between means	18.222	11.583	9.374

[a] See note [a] to Table 7-1.

[b] Significant at the 0.001 level.

[c] Significant at the 0.01 level.

[d] Significant at the 0.05 level.

Table 7-3. Association between Percentage Attendance at McCabe and Educational Success by Time of Interview, YMP

	Postpartum Interview		
Test[a]	3 Months	15 Months	26 Months
r_b	0.346	0.340	0.305
t	4.430	4.175	3.489
Difference between means	22.124	14.373	12.538

[a] Both tests significant at the 0.001 level.

Table 7-4. Association[a] between Percentage Attendance at McCabe and Delay of Subsequent Pregnancies by Time of Interview, YMP

	Postpartum Interview	
Test	15 Months	26 Months
r_b	0.305[b]	0.304[b]
t	3.685[b]	2.543[c]
Difference between means	14.980	9.203

[a] See note [a] to Table 7-1.

[b] Significant at the 0.001 level.

[c] Significant at the 0.01 level.

Table 7-5. Association[a] between Measures of Educational Status at Registration and Employment by Time of Interview, YMP

	Postpartum Interview	
	15 Months	26 Months
In appropriate grade		
r_b	0.184[b]	0.180[b]
t	2.388[b]	2.763[c]
Difference between means	0.157	0.193
High educational goals		
r_b	0.187[b]	0.212[b]
t	2.371[b]	3.340[c]
Difference between means	0.243	0.352
Grade in school		
r_b	0.203[c]	0.194[b]
t	3.461[d]	3.226[c]
Difference between means	0.776	0.777

[a] See note [a] to Table 7-1.

[b] Significant at the 0.05 level.

[c] Significant at the 0.01 level.

[d] Significant at the 0.001 level.

Table 7-6. Association[a] between Measures of Program Participation and Employment by Time of Interview

	Postpartum Interview	
	15 Months	26 Months
Number of days at McCabe		
r_b	0.220[b]	0.191[b]
t	2.602[b]	1.441 (n.s.)
Difference between means	10.822	6.417
Percentage attendance at McCabe		
r_b	0.309[d]	0.287[c]
t	3.758[d]	3.049[c]
Difference between means	1.325	1.162
Number of antepartum group sessions		
r_b	0.260[d]	0.119
t	3.409[d]	0.961 (n.s.)
Difference between means	1.256	0.374
Percentage attendance at McCabe		
r_b	0.264[c]	0.064
t	3.198[c]	0.082 (n.s.)
Difference between means	0.834	0.221

[a] See note [a] to Table 7-1.

[b] Significant at the 0.05 level.

[c] Significant at the 0.01 level.

[d] Significant at the 0.001 level.

8 The Study Findings and Their Implications for Policy Formulation

The agency that funded this study and the research staff that developed and executed it believed that its findings would influence those responsible for developing policy relative to pregnant girls of school age. This final chapter will focus on those study results that have policy implications and attempt to show how programs could be modified to assist further this special group of young women.

Appraisal of the Two Comprehensive Programs

The two programs studied intensively must be judged as partial successes in terms of their ability to attract pregnant girls in need of their services and to guide those girls in the direction of program goals.

Intake. Both the Young Mothers Program and the Inter-Agency Services were able to draw a large percentage of the school-age pregnant girls in their respective communities who needed assistance with their pregnancies and were economically unable to secure other types of help. White or middle- and upper-income girls of any race were noticeably lacking; certainly school-age girls from these classes do become pregnant but they did not join the programs. Evidence from elsewhere suggests that their problems are solved by abortion, a maternity home, by leaving town, or marriage.

A significant finding for planners is the larger percentage of the eligible population reached by a hospital program than by a school program. This may have been due to IAS's policy of refusing to admit girls who had not completed eighth grade or who were not in school when they became pregnant, but it seems possible that even if these two restrictions were lifted, the program with a social service or school image would not attract as large a proportion as a hospital-based program. For many of the eligibles, school was unattractive and unessential, but most in this age group sought prenatal care. One recommendation, therefore, is that programs not based in hospitals, which want to reach as many pregnant school-age girls as possible, maintain very close cooperative relationships with obstetric clinics in hospitals and neighborhood health centers, and with private obstetricians.

This study could find no support for the IAS policy of not admitting girls below the ninth grade. The YMP girls who were in the lower grades did no worse on any of the basic indicators of success than the older group except where one would expect age to make such differences as the proportions graduated and employed. Moreover, the younger group probably had fewer educational alternatives. Although a pregnant girl 15 or older may be able to stay in her regular classroom without being rejected by her peers or the teachers, the girl who is 14 or younger cannot. For her an alternative educational opportunity is essential, and homebound instruction should not be the only one available.

If resources of money and personnel are limited, the IAS policy of accepting only girls still in school does seem reasonable.

YMP girls who were not in school when they registered for the program did less well in terms of completing education, delaying subsequent pregnancy, and achieving economic independence than those who were in school. Some programs, therefore, may choose to focus on the girls who are most likely to benefit, rather than trying to reach those with little chance of success—and possibly spreading services so thin that even the potential successes are not helped.

This should not be interpreted as an attempt to neglect the pregnant dropouts or "force-outs." Certainly these girls need help, but they probably will require a different type of service program than those which were studied. Social workers and educators must realize that past inadequacies in the educational system or many years in nonsupportive family situations or oppressive poverty cannot be remedied in a few months or even a year of intervention. Although no major social change may be possible for a young mother, she may accept assistance in optimizing her already determined life style. Reality-oriented educational experiences such as cooking, cleaning, sewing, budgeting, and child-rearing, and instruction in legal rights are being tried by some programs and show promise. Vocational education is essential so that this group of girls may enter the world of work and find personal satisfactions besides those associated with sexual relations and childbearing.

Short-Term Goals. *Health:* In terms of short-range goals the two programs were successful. In the antepartum and immediate postpartum period, the young mothers and their infants did as well as or better than girls not served by a special program. The mothers generally were healthy during the pregnancy (though no more so than those cared for in more traditional obstetric clinic settings), the infants were significantly more healthy at birth, and the mothers delayed subsequent pregnancies significantly longer than those in the Comparison group.

The comparison between the YMP group which received care in the special Young Mothers Clinic at the Yale-New Haven Hospital, and the earlier Comparison group which received care in the general obstetric clinics of the same hospital, suggests that the advantages of the clinic in which the school-age pregnant girl is separated from older pregnant women are not solely in the medical area. For example, the segregated clinic may be able to convey the contraceptive message or encourage school attendance more effectively than the general clinic.

The IAS girls who attended hospital clinics under the support and guidance of Hartford's federally financed Maternal and Infant Care Project, with which the IAS program had a cooperative relationship, showed medical results comparable to the YMP girls whose Young Mothers Clinic was closely coordinated with the overall program. The only hint that source of care may make a difference medically is found where there is no program. The few IAS girls who received private care showed poorer outcomes in terms of stillbirths, return for postpartum care, and acceptance of contraception. The data are suggestive only, and these findings must be supported by further studies before conclusions about the best source of medical care can be drawn.

Education: The two programs were largely successful in enabling those girls who were still in school at the time of conception to remain in school during pregnancy and return to school after delivery, either to the special education programs or to regular schools.

Long-Term Goals. Over a longer period of time the programs do not appear to have been so successful. In contrast to the hopes of the clinical staffs and the expectations of program planners, too many girls at two years postpartum had left school before graduation, had become pregnant again, and had made little progress toward economic self-sufficiency. Subsequent infants delivered to the same mothers had a disturbingly high rate of prematurity and perinatal mortality. Many mothers resorted to induced abortions to terminate subsequent pregnancies. Almost half the mothers had dropped out of school by the end of the study period at approximately 26 months postpartum. Social problems were beginning to appear—separation, divorce, suicide attempts, violence, and child abuse.

By two years postpartum, approximately half of the young mothers achieved the program goals in each of several areas, but the evidence from the Comparison group (which had good medical care but little other support) suggests that about a quarter of these pregnant school-age girls were sufficiently motivated to have achieved them with traditional, minimal help from organized sources. Obviously, special programs can make life much easier for this group, but the programs cannot claim sole credit for its achievements.

Approximately half of the study population who were not "successes" on each of the long-term program goals were nevertheless helped to achieve short-term goals. Apparently the programs were able to provide assistance to them during the stress of pregnancy but did not have sufficient impact during their brief intervention to modify life styles for a longer period. The marked difference between short and longer effects led the research staff to call the projects "crisis intervention programs."

New Approaches

These statements are not made to condemn special programs for pregnant schoolgirls or even to suggest that they be discontinued. On the contrary, the staff feels that they should be encouraged and broadened, but with a greater understanding of their limitations and much more experimentation with new models of service. Certainly, most people who work in the field of social welfare already know what this research documents — that one cannot change human beings or their environment with brief social interventions. This study must join the ranks of others which end with a plea for reallocation of public priorities that will enable those of limited income to live more satisfying lives. The staff is not so naive as to believe that poverty, school-age pregnancy, illegitimacy, disturbed families, and other social ills can be eradicated by governmental policies, but it does feel that the situation could be better than it is now. The staff also believes that emphasis should be shifted to the alleviation of basic problems and away from the development of new programs to compensate for them. However, educational and medical services should be a right of every young woman.

Service Models. Meanwhile, new service models are being tried. During much of the study period most programs with educational components developed special classes separated physically from the schools nonpregnant girls attended. Toward the end of the period, cities such as Atlanta began experimenting with retaining pregnant girls in their regular classrooms and providing supplementary services. An earlier paper written by the present research team pointed out the parallel between the sequence of educational services for handicapped students and that for pregnant girls (Holmes, et al., 1970.) The handicapped, whether they were blind, deaf, or otherwise physically impaired, or emotionally or mentally disturbed or retarded, were originally excluded from schools. Later, homebound instruction was provided for each of these groups. This was followed by special segregated schools which in turn were replaced by segregated classes. Eventually it was realized that the child could benefit most from contact with his peers and that many, if not most of the handicapped, were flexible enough to be able to adapt to the needs and problems of the classroom if the teachers showed the same flexibility. The pregnant girl appears to be going through the same sequence of exclusion, homebound instruction, segregated school, segregated class, and integration. Unfortunately, this study did not collect data on programs in which pregnant girls attended regular classes. The four girls in the YMP program who continued in regular school did well by the study criteria, but the number is too small to lead to conclusions. The research staff suspects, however, that the findings on the integrated programs may be similar to this one. As in the case of the handicapped child, moreover, integration should not be the only educational possibility. Particularly for the younger pregnant girls, but also for some of the older ones with educational, physical, or emotional adjustment problems, segregated classes and even homebound instruction should be available.

Curriculum. Mention has been made of the need of many of the girls for an unconventional curriculum. Girls still in school at the time they become pregnant, especially those with educational goals which include high school graduation, frequently will achieve in the kind of academic curriculum provided by the special programs, but for those who drop out before, during, or shortly after pregnancy and who have low educational goals, another curriculum should be tried. The data cannot determine whether a different curriculum, with emphasis on domestic science and vocational training, would lead to better outcomes, but for some it would undoubtedly be more acceptable. Also, a change in objectives might come with a change in the educational approach. Instead of using arbitrary criteria, such as high school graduation or delay of subsequent pregnancy, which assume acceptance of a middle-class life style, perhaps criteria that would measure success in the life style chosen might be substituted, such as ability to budget, or to care for a child, or to develop a favorable home environment.

Major Conclusions and Their Program Implications

1. Even a demographically homogeneous population of urban school-age pregnant girls contains a wide range of capability, motivation, and potential for achievement. There is no justification for considering these young women more "bad" or "hopeless" than other urban school-age girls.

These young women should not be denied the basic medical, social, and educational services they need on the basis of character or potential for achievement, as often has been done in the past.

2. Two programs which provided comprehensive medical, social, and educational services to school-age mothers during pregnancy, delivery, and the immediate postpartum period had a positive impact on their clients for more than one year postpartum in the areas of the infant's health, the mother's education, and child-spacing.

The continued support of programs such as those studied can be justified in terms of assisting school-age mothers to achieve good health during pregnancy and delivery, and uninterrupted education for several months following delivery.

3. The impact of the program declined over time in all three areas (health, education, and child-spacing) and by 26 months postpartum the impact was still noticeable only in the educational area. In contrast, the characteristics the girls brought to the program, which shared importance with the program variables for the first few months postpartum, maintained their impact, so that by 26 months postpartum they were

more important predictors of program success than program elements.

Programs offering services geared to only the prenatal period and a few postpartum months ("crisis intervention") will have short-term impact on school-age mothers. Longer impact may require either flexible extension of these programs or the development of new programs to meet the long-term needs of the young mother for child care, medical services, vocational training, employment assistance, and personal counseling.

4. The levels of achievement of the young mothers in the areas under study (health, education, child-spacing, and economic independence) were not distributed randomly either at 15 or 26 months postpartum but formed several life styles, most of which were a mixture of "success" and "failure" by the study criteria. At 26 months postpartum, the young mothers who formed the largest group tended to be single, in school, and without a subsequent pregnancy. They tended not to be economically independent, however. Another large group tended to be married and economically independent, but these mothers had interrupted their education and/or had had another child.

Program planners and staff should be aware that only a limited number of life styles may be available to most young mothers, each of which shows higher levels of achievement in some areas than in others. An understanding of this development should aid in counseling. Also, evaluation should not focus exclusively on individual end-result measures but should study their interaction as well.

5. Two special comprehensive programs with medical, social, and educational components but considerably different service approaches produced very similar end results among similar populations of young mothers.

No single style or program emphasis is essential so long as the basic program components are provided by competent and motivated personnel. This study, therefore, does not conclude there is only one way to provide these basic services, and offers no single program as a model.

Reference

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Appendices

A. Bibliography of Maternal and Child Health Service Grants H-118, H-231, and MC-R-090048

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B. Research Staff, MC-R-090048

During Final Grant Period

Principal Investigator and Project Director (1968-72); Study Director (1970-72)	James F. Jekel, M.D., M.P.H.
Co-Principal Investigator (Service Director, 1969-72)	Philip M. Sarrel, M.D.
Consultant (Study Director, 1967-70)	Lorraine V. Klerman, Dr.P.H.
Research Associates	Edith S. Fein, M.S.
	Thelma N. Thornton, M.S.N., M.S.
Associate in Research	Deccon R.E. Bancroft, Ph.M.
Research Assistants	M. Elisabeth Lorenzi, A.A.
	Anne F. Wilde, B.A.
	Natalie C. Tyler, R. N.
Editor	Anne F. Wilde, A.B.
Clerical Assistants	Laura Brache
	Florence Wasserman

Previously with Project

Principal Investigator and Project Director (1967-68)	Ira W. Gabrielson, M.D., M.P.H.
Co-Principal Investigator (Service Director, 1967-69)	C. Lee Buxton, M.D.*
Research Associate	John B. Currie, Ph.D.
Research Psychiatrist	Dorothy O. Lewis, M.D.
Research Assistants	Blanche Bruton, L.P.N.
	Barbara C. Lerman, M.P.H.
	Alberta Martucci
	Natalie T. Riede
	Phyllis White
Interviewers	Rosebud K. Davis
	Theda Foster, B.A.
Clerical Assistants	Lorraine Fishman
	Linda LaGreca
	Anna C. Ruggles, A.A.
Consultants	Harvey M. Brenner, Ph.D.
	Richard A. Greenberg, Ph.D.
	Brigitte Prusoff, M.P.H.

Students Who Have Done Research with the Project in Partial Fulfillment of the Requirements for the Degree of Master of Public Health

Mary Elizabeth Holmes Avery, M.P.H.
Katherine Burnham Duell, M.P.H.
Ann-Marie Foltz, M.P.H.
Jean T. Harrison, M.P.H.
Marilyn M. Massey, M.P.H.
C. P. Noel McCarthy, M.D., M.P.H.

*Deceased

C. Coordination of YMP Components

Due to the foresight of those developing the Young Mothers Program, the medical and the educational components of the program were coordinated so that the Young Mothers Clinic did not conflict with classes. In addition, each component encouraged the young women to attend the other facility regularly. Medical input was available at the McCabe Center through the public health nurse there, and she communicated when necessary with the medical personnel.

The social services, however, were in a more difficult position, since they sought to straddle the two facilities. In the beginning of the program, the social service input came from hospital-based social workers with professional degrees. They usually saw the young mothers in the Young Mothers Clinic or occasionally at home. Many problems needing counseling and advice, however, were raised by the girls at McCabe, where the hospital-based social workers were not available. The McCabe Center staff was forced, therefore, into a counseling role, and eventually the Center hired community persons to assist in outreach and counseling. Subsequently, problems developed in coordinating the efforts of professional social workers at the hospital and community outreach workers at McCabe. For example: How were the responsibilities to be divided? Who was to supervise whom? How much time should the hospital-employed social workers spend at McCabe Center? How could communication be improved? When were professional social workers more effective, and when were community workers more effective?

Partway through the intake into the study it was decided that the hospital-based social workers should spend as much time as possible at the McCabe Center during the time the girls were there. This atypical arrangement for hospital-based social workers simplified communication and coordination of efforts, as community and hospital-based staff came to know each other better. More communication was possible with the girls and, perhaps most important, this occurred under more natural and spontaneous circumstances. Scheduling of group sessions became easier. The social workers provided a certain amount of inservice education and informal supervision for the community workers, who in turn gave insights into the community and its problems to the hospital staff. Although the problem of coordinating staff with different backgrounds from two different agencies was by no means solved, positive steps toward improvement were taken. It seems that, although community workers can be effective counselors, professional supervision is needed for their training and for handling the more difficult problems directly. There appear to be definite advantages in reducing the formality of social work contact for this age group and in having the social service staff based where the girls usually are.

D. Variables Used in Analyses

The variables used in analysis are shown with their source, categories, and codes.

Variable Name	Source	Code and Categories
Pre-Existing Characteristics		
Demographic Variables		
Age at delivery (YMP, IAS, Comp.)	Hospital records[a]	(years old) 1 = 11 2 = 12 3 = 13 4 = 14 5 = 15 6 = 16 7 = 17 8 = 18
Race (YMP, IAS, Comp.)	Hospital records	1 = Black 2 = White (includes those defined as Puerto Rican)
Religion (YMP, IAS, Comp.)	Hospital records	1 = Protestant 2 = Catholic
Birthplace (YMP, IAS, Comp.)	Hospital records	1 = New Haven or Hartford 2 = Other New England states 3 = Middle Atlantic states 4 = Southern states 5 = Other states or countries
Length of residence in New Haven or Hartford (YMP, IAS)	Social work forms	(no. of years) 1 = 1–2 2 = 3–4 3 = 5–9 4 = 10–14 5 = 15–18
Total number of persons in household	Social work forms	(no. of persons) 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 or more
Household type at registration (YMP, IAS)	Social work forms	1 = Girl only 2 = Mother only parent 3 = Both parents 4 = Putative father 5 = Others and relatives 6 = Foster home

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[a] Hospital records include clinic and emergency-room records.

Variable Name	Source	Code and Categories
		(previous pregnancies)
Number of previous pregnancies (YMP, IAS, Comp.)	Hospital records	1 = 0 2 = 1 3 = 2
Ordinal position (YMP)	Social work forms	1 = Only or oldest 2 = Other
Educational Variables		
School status at registration **(YMP, IAS)**	Questionnaire answered by girl and school records	1 = In school 2 = Dropped out
Last grade attended (YMP, IAS)	Questionnaire answered by girl	1 = Under 11[a] 2 = 11–12
Educational goals at registration **(YMP, IAS)**	Social work forms	1 = Dropout or other 2 = Finish high school 3 = Beyond high school
At grade; census method (YMP, IAS)	Calculated	1 = At appropriate grade 2 = Below appropriate grade
At grade; exact method (YMP)	Calculated	1 = At appropriate grade 2 = Below appropriate grade
Economic Variables		
Welfare status at registration (YMP, IAS)	Social work forms	1 = On welfare 2 = Not on welfare
		(quartile)
Social class quartile (YMP)	New Haven census use study	1 = First 2 = Second 3 = Third 4 = Fourth
Measures of Program Participation		
Quantity of Contact, Medical		
		(visits)
Number of antepartum clinic visits (YMP, IAS, Comp.)	Hospital records	1 = 0 2 = 1–2 3 = 3–4 4 = 5–6 5 = 7–8 6 = 9–10 7 = 11–12 8 = 13 or more

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[a] In some instances the exact grade was coded.

Variable Name	Source	Code and Categories
Time to postpartum visit (YMP, IAS, Comp.)	Hospital records	1 = On time 2 = Late visit (> 8 wks) 3 = No visit
Quantity of Contact, Educational		
Attended McCabe (YMP)	School records	1 = Attended 2 = Did not attend
Exact number of days attended McCabe Center (YMP)	School records	Exact number of days coded
Quantity of Contact, Social Service		
Number of social work interviews (YMP)	Social work forms	(no. of interviews) 1 = 0 2 = 1 3 = 2 4 = 3 5 = 4 6 = 5–9 7 = 10 or more
Number of group sessions attended (YMP)	Social work forms	(sessions attended) 1 = 0 2 = 1 3 = 2 4 = 3 5 = 4 6 = 5–7 7 = 8 or more
Acceptance of Services, Medical		
Number of weeks gestation at registration (YMP, IAS, Comp.)	Calculated from hospital records	(weeks of gestation) 1 = Under 16 2 = 17–19 3 = 20–23 4 = 24–27 5 = 28–31 6 = 32–35 7 = Over 35 weeks
Antepartum clinic appointments kept (YMP)	Calculated from hospital records	(%) 1 = 0–19 2 = 20–39 3 = 40–59 4 = 60–79 5 = 80–100
Contraception postpartum (YMP, IAS, Comp.)	Hospital records	1 = None prescribed 2 = Referred elsewhere 3 = Birth control prescribed
Acceptance of Services, Educational		
Choice of school (YMP)	Social work and school records	1 = No school 2 = Regular school 3 = McCabe Center

Variable Name	Source	Code and Categories
		(%[c])
Percentage attendance, McCabe (YMP)	Calculated from school records	1 = 0–19 2 = 2–29 3 = 30–39 4 = 40–49 5 — 50–59 6 = 60–69 7 = 70–79 8 = 80–89 9 = 90–100
Acceptance of Services, Social Work		
		(%)
Group sessions attended (YMP)	Calculated from social work forms	1 = 0–19 2 = 20–39 3 = 40–59 4 = 60–79 5 = 80–100
		(rating points[d])
Quality of participation in group sessions attended (YMP)	Social work rating forms	1 = Less than 1.5 2 = 1.5—1.9 3 = 2.0—2.4 4 = 2.5—2.9 5 = 3.0—3.4 6 = 3.5—4.0
Use of social worker (YMP)	Social work rating forms	1 = Not enough use 2 = Appropriate use
Response to recommendations (YMP)	Social work rating forms	1 = Rebellious 2 = No interest 3 = Cooperative 4 = Very cooperative
Variations in the Program		
Antepartum medical supervision (YMP)	Hospital records	1 = M.D. 2 = Nurse-midwife
Source of prenatal care (IAS)	Clinic and private Physicians' records	1 = Private care 2 = Hartford Hospital 3 = Mount Sinai Hospital 4 = Saint Francis Hospital
Social worker assigned (YMP)	Social work forms	1 = Social Worker A 2 = Social Worker B 3 = Social Worker C
Assigned to group session (YMP)	Social work forms	1 = No 2 = Yes

[c] In some instances this was coded as exact percent attendance.

[d] A low score means little participation in discussion; a high score means active participation.

Variable Name	Source	Code and Categories
Obstetrical Status		
Antepartum		
Hematocrit[e] (YMP, IAS, Comp.)	Hospital records	1 = Severe anemia 2 = Moderate anemia 3 = Mild anemia 4 = Not anemic
Uterine infection (YMP, IAS, Comp.)	Hospital records	1 = Present 2 = None
Urinary tract infection (YMP, IAS, Comp.)	Hospital records	1 = Present 2 = None
Vaginal bleeding (YMP, IAS, Comp.)	Hospital records	1 = Present 2 = None
Venereal disease (YMP, IAS, Comp.)	Hospital records	1 = Present 2 = None
Toxemia[f] (YMP, IAS, Comp.)	Hospital records	1 = Severe 2 = Mild 3 = None
		(pounds)
Total weight gain (YMP, IAS, Comp.)	Hospital records	1 = Loss 2 = 0–8 3 = 9–25 4 = 26 or more
Corrected weight gain[g,h] (YMP, IAS, Comp.)	Calculated from total weight gain and age	1 = Loss 2 = 0–8 3 = 9–25 4 = 26 or more
Mental and/or psychiatric problems (YMP)	Psychiatric referral form, hospital records	1 = Problem 2 = None
Medical complications[i] (YMP)	Hospital records	1 = Present 2 = None
Hospitalization (YMP, IAS, Comp.)	Hospital records	1 = None 2 = Once 3 = Twice or oftener

[e] Also used as a continuous variable.

[f] Also coded as 1 = present; 2 = absent.

[g] Also coded as exact number of pounds gained or lost.

[h] For expected weight gain due to growth.

[i] Includes toxemia, infection, bleeding, etc.

Variable Name	Source	Code and Categories
Intrapartum		
Total labor time[j] (YMP, IAS, Comp.)	Hospital records	1 = Normal 2 = Prolonged (more than 20 hr.) 3 = Precipitate (less than 3 hr.)
Type of delivery (YMP, IAS, Comp.)	Hospital records	1 = Complex delivery[k] 2 = Low mid-forceps 3 = Spontaneous delivery or outlet forceps
Postpartum		
Birth order (YMP, IAS, Comp.)	Hospital records	1 = First child 2 = Second child 3 = Third child
Delivery outcome (YMP, IAS, Comp.)	Hospital records	1 = Stillbirth 2 = Hebdomadal death 3 = Premature live birth 4 = Full-term live birth
Obstetrical outcome score[l] (YMP, IAS, Comp.)	Calculated from hospital record data	1 = 0 2 = 25 3 = 50 4 = 75 5 = 100
Birthweight[m] (YMP, IAS, Comp.)	Hospital records	1 = Premature, immature 2 = Full-term live birth
Apgar score (YMP, IAS, Comp.)	Hospital records	1 = 0–3 2 = 4–6 3 = 7–10
Puerperal infection (YMP, IAS, Comp.)	Hospital records	1 = None 2 = Present
Postpartum bleeding (YMP, IAS, Comp.)	Hospital records	

[j] Also used as exact number of hours and dichotomized at 20 hours.

[k] Includes Caesarian section, breech delivery, rotation, and mid-forceps delivery.

[l] See chapter 5 for description.

[m] Sometimes divided into three or four categories, or used as a continuous variable.

Variable Name	Source	Code and Categories
Outcome Variables from Interviews		
	Interview (months)	
Postpartum educational status[n] (YMP, IAS, Comp.)	3, 15, 26 and school records	1 = Dropout 2 = In school 3 = Graduated
Subsequent pregnancy[o] (YMP, IAS, Comp.)	3, 15, 26	1 = Subsequent pregnancy terminated 2 = Now pregnant 3 = None
Employed currently (YMP, IAS, Comp.)	3, 15, 26	1 = No 2 = Yes
Employment since delivery (YMP, IAS, Comp.)	15, 26	1 = Not worked 2 = Has worked, but not now 3 = Working now
Welfare assistance (YMP, IAS)	3, 15, 26	1 = Full 2 = Partial 3 = None
Source of income (YMP, IAS)	3, 15, 26	1 = Welfare only 2 = Welfare plus other 3 = No welfare
Two-factor success score (YMP, IAS)	15, 26	1 = Pregnant and dropout 2 = Pregnant or dropout 3 = No pregnancy and in school or graduated
Miscellaneous		
Marital status[p] (YMP, IAS, Comp.)	3, 15, 26 and hospital records	1 = Married 2 = Single
Contraception (YMP, IAS)	3, 15, 26	1 = None 2 = Using
Attitude to program (YMP, IAS)	3, 15, 26	1 = Negative 2 = Mixed 3 = Positive

[n] Sometimes used as 1 = dropout; 2 = graduated or in school.

[o] Sometimes used as 1 = none; 2 = has been or is pregnant.

[p] Sometimes used as 1 = not married; 2 = married; 3 = separated or divorced.

Variable Name	Source	Code and Categories
	Interview (months)	
How are you doing? (YMP, IAS)	26	1 = Poorly 2 = Not too well 3 = Fairly well 4 = Very well
	Source	
Signs of worry (YMP)	Social work rating forms[q]	1 = Severe 2 = Moderate 3 = Mild 4 = None
Understanding responsibilities of motherhood (YMP)	Social work rating forms[q]	1 = Definitely inadequate 2 = Inadequate 3 = Somewhat adequate 4 = Adequate 5 = Full and real
Type of mother (YMP)	Social work rating forms[q]	1 = Immature 2 = Average 3 = Mature
Client perception of social worker helpfulness (YMP)	3-month interview	1 = Not helpful 2 = Mixed feelings 3 = Definitely helpful
Marital status at delivery (YMP, IAS, Comp.)	Hospital records	1 = Married 2 = Single

[q] Made after intake interview.

E. Methodological Discussion of Multivariate Statistics

Three types of data are used in this study: nominal, ordinal, and interval. *Nominal* data can be divided into different categories, but the categories have no particular ordered relationship to each other. The variable, "social worker assigned," could contain only nominal data, since each category merely names a social worker, and the social workers can not be ranked in any order meaningful to the study. Other examples of nominal data are the hospital of delivery in Hartford, the school attended, and the place of birth.

Ordinal data can be divided into categories which have a clear and meaningful order or rank but are not necessarily equally spaced. Thus when the social workers were asked to rate the way the pregnant girls responded to their recommendations, they checked "very cooperative," "cooperative," "no interest," or "rebellious." Although these categories are clearly a continuum from very cooperative to very uncooperative, the determination of the relative size of the intervals between the categories is a matter of judgment. Other variables of this type are "educational goals at registration" (beyond high school/high school graduation only/dropout before graduation) and "helpfulness of social worker" (definitely helpful/mixed reaction/definitely not helpful).

Interval data can be divided into categories in such a way that numerical size of the intervals between categories has an intrinsic meaning. For example, each point on a hematocrit reading represents 1% of the blood volume that is occupied by red blood cells. Other such variables are the number of weeks gestation at registration, the number of obstetric clinic visits made, the number of social-work group sessions attended, and the percentage of eligible school days or group discussion sessions attended.

The statistical tools for interval data are more powerful than those for ordinal data, which in turn are more powerful than those for nominal data. For nominal data, inspection frequently was sufficient to determine independence or lack of it. In testing for associations when one or both variables were in nominal form, the chi-square test was used since it does not assume a specific distribution. When both variables contained ordinal data or when one variable was ordinal and the other interval, rank-order tests were sometimes used to test for association. These tests are more sensitive and powerful than chi-square when a trend is present. Examples of this type of test are Kendall's tau and the gamma test.

Assumptions in the Use of the Correlation Coefficient

Many of the analyses of causal factors related to participation or to outcome depend on the use of the Pearson product-moment correlation coefficient (r), either directly or as a basic component of multiple regression. The validity of the correlation coefficient depends on several assumptions being met.

First, the correlation coefficient assumes interval data (see above). Some of the independent, program participation, and outcome variables are interval data (e.g. age, number of years lived in New Haven, number and percentage of visits, and number of subsequent pregnancies) and, therefore, associations can be tested by the correlation coefficient. When a variable is dichotomized (i.e. has only two categories such as single or married, or success or failure) the biserial correlation coefficient may be used.[1] Where both variables are dichotomized, the Pearson r is still useful if the observations in both variables are fairly evenly distributed. The correlation coefficient between two dichotomized variables bears an exact relationship to chi-square which is given by the following:

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[1] Edwards, Allen L. *Statistical Methods for the Behavioral Sciences*. New York, Holt, Rinehart and Winston, 1964, chap. 10.

$$r = \sqrt{\chi^2/N}.$$

That is to say, the r measures the strength of association adjusted for the sample size.

This study has followed the practice in much of current social research and made interval data assumptions about some of the ordinal data. For example, values have been assigned arbitrarily to the three categories of educational goals (dropout before high school graduation / graduate but not continue education / continue education beyond high school), reflecting their place on the continuum. Thus, low educational goals (dropout before graduation) were assigned a low score (1); intermediate goals (graduate only) a higher score (2); high goals, education beyond high school (3). The correlation coefficient would not be changed if the scores assigned were 0, 1, and 2 or 2, 3, and 4, since it is the relative distance between categories, and not the value of the lowest category, which determines the value of r. Boyle[2] has shown that these assumptions give consistent results within a broad range and has argued persuasively for using interval assumptions with ordinal data when the ordered nature of the data is certain and the categories are distinct and meaningful. This reasoning is accepted and applied in this study, so that some ordered variables are used in correlation and regression studies.

A second assumption in the use of the Pearson correlation coefficient is that the relationship between two variables is linear (i.e. a straight line).

A third assumption underlying the use of correlation is that the variables are distributed normally. This may be tested by plotting the cumulative distribution of a variable on arithmetic probability paper. If the resulting series of points form a straight line, or very close to one, the condition is met. To make this test, three or more points are needed exclusive of 0% and 100%. Several variables were tested in this way and adequately met the criterion for the intermediate range tested. This included independent variables (e.g. age), program participation measures (e.g. percentage attendance at the McCabe School), and dependent variables (e.g. the proportion of educational "successes" at several points of time, from registration to the 26-month interview). This assumption did not hold so well, however, when smaller, more homogeneous subgroups were taken for separate analyses (e.g. the proportion of educational "successes" among only those who were in school at registration, which are skewed toward a higher proportion of successes). Therefore the only place where the failure to meet this assumption might weaken the reliability of these analyses would be in the components of the path analysis based upon less than a full sample.

The tests mentioned above can be applied to only two variables at a time. Since this study includes a large number of variables, both independent and dependent, multivariate techniques (which depend, in part, upon the correlation coefficient) were used to study the simultaneous effect of several variables.

Tests of Significance Used in Chapter 7

For the analysis in the first part of chapter 7 it was necessary to find tests that would give an estimate of changes in the strength of association over time between a given independent and dependent variable. Two tests of significance were used, the biserial correlation coefficient just described and the t-test.

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[2] Boyle, Richard P. "Path Analysis and Ordinal Data." *American Journal of Sociology*, 75 (1970), 461–80.

The t-test was also used to determine the difference between the mean values of an independent or program variable within each of the two categories of the dependent variable, and the statistical significance of this difference. In some cases the means themselves—and therefore the difference between the means—have an intrinsic quantitative meaning (e.g. the average number or percentage of days the "success" or the "failure" group attended the McCabe Center). For other variables, the means and their differences have no intrinsic meaning since the numerical value reflects the numbers assigned to the various categories of a variable, as shown in Appendix C. (An example would be educational goals, where a mean value of 2.00 would mean that on the average the girls wanted to graduate from high school but go no farther; a score of less than 2.00 would imply that more girls wanted to drop out before graduation than wanted to go to college or other school beyond high school.) This is, in effect, "scoring" the variables; the t-test is valid if the categories are ordered and the intervals reasonable, and if the variable is approximately normally distributed.

The differences between the means are shown since these reflect the absolute changes occurring over time and are not influenced by changes in sample size. They provide an important dimension to the understanding of the trends over time.

Multiple Regression and Path Analysis

Multiple regression analysis may be used when several independent variables are thought to influence one dependent variable, and when a bivariate normal distribution may be assumed. The independent variables are entered into the regression equation one at a time, beginning with those variables most strongly correlated with the dependent variable. The first independent variable entered into the regression equation explains a certain amount of the variation in the dependent variable, and each subsequent independent variable entered explains an additional amount of variation beyond that previously explained. For a given equation, the total amount of variation explained is shown by the "multiple correlation squared," i.e. the "r^2."

The particular method used was the stepwise regression program in the DATATEXT system for the IBM 370 computer. This system stopped entering new independent variables into the equation when the additional variation explained by a new variable was less than 1%.[3] All units (study subjects) for which there was any missing information were eliminated from the regression equation.

One of the features of the regression program used is that it provides the "standardized regression coefficient" for each independent variable in the equation; this standardized coefficient is comparable to the path coefficient of Wright,[4] and is the figure put over each path arrow in the path analyses. The "path coefficient" was chosen over the "path regression" of Turner and Stevens[5] because the former is dimensionless and the latter is not, i.e. "the standardized coefficients are adjusted for differences in the scales of measurement for each of the independent variables; hence, they can be compared to one another to determine the relative predictive power of each independent variable with the others 'held constant.' "[6] In this study, many of the independent variables were unmeasured (categorized) variables, so that the dimensionless, standardized coefficients were necessary. It is important to remember that the path coefficients give an estimate of the *relative* importance of the various paths, rather than an absolute measure of the contribution of each. The figure for the "residual" or unexplained variation in a path analysis is the *square root* of the proportion of the variation which is unexplained (i.e. $\sqrt{1 - r^2}$). There are several sources of unexplained variation in each of the paths. Some of the residual variation may be due to the interaction between the various dependent variables existing at a point in time, which could not be related to each other because of the difficulty in determining the causal path. Another source of the residual variation is presumably due to influences not detected by the independent variables used in the study. In paths where the total explanatory power is small, the latter explanation is probably far more important than the former.

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[3] That is to say, when the multiple correlation squared was increased by less than 0.01.

[4] Wright, Sewall. "Path Coefficients and Path Regressions: Alternative or Complementary Concepts?" *Biometrics, 16* (1960), 189-202.

[5] Turner, Malcolm E., and Stevens, Charles D. "The Regression Analysis of Causal Paths." *Biometrics, 15* (1959), 236-58.

[6] Armor, D. J., and Couch, A. S., *The Data-text Primer,* mimeographed prepublication edition, July 1971, page 160.

A third source of variation was the fact that most of the dependent variables were dichotomous. This meant that all values of a dependent variable (Y) deviated the maximum possible amount from the mean of Y instead of clustering normally about that mean. Since this maximized the variance of Y to be explained, it diminished the proportion of the total variance explained by the independent variables, but it would not change the *relative* explanatory power of the independent variables.

The analyses were done sequentially, meaning that only those units still at risk for success or failure were included in a given regression equation. For example, all the young mothers were at risk for having a subsequent pregnancy by 15 months postpartum, so that all of them were included in the regression equation which had "pregnancy status, 15 months postpartum" as the dependent variable. However, what was desired next was an answer to the question, "Given that a girl still had not conceived again by 15 months, what factors explained whether or not she conceived again by 26 months postpartum?" Therefore, all those who were pregnant by 15 months postpartum were eliminated from the analysis of the next stage of the path. It was hoped that this procedure would give useful clues for program intervention at various points in time both antepartum and postpartum. It did progressively reduce the sample size, however, which decreased the explanatory power somewhat.

The path analysis should be generalized with caution, since the relative strength of various paths depended on the relative impact of a given characteristic per young mother *and* on the proportion of young mothers possessing the characteristic. The latter would vary according to the sampling method used. It is hoped that these findings would be reasonably transferrable to a similar population, but they should not be generalized to all young mothers or to samples of very different young mothers.

F. Eastman Criteria for Diagnosis of Toxemia[1]

"In the nonconvulsive stage the toxemia is called *preeclampsia;* the added appearance of convulsion or coma makes the diagnosis *eclampsia.*

"The criterion employed for classifying a case as one of preeclampsia is the development, after the 24th week of pregnancy, of one or more of the following: a systolic blood pressure of 140 mm Hg or more, or a rise of 30 mm or more above the usual level; a diastolic pressure of 90 mm or more, or a rise of 15 mm or more above the usual level; proteinuria of significant degree; persistent edema of the hands or face. A single recording of blood pressure may be misleading, and the American Com-

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[1] Eastman, N. J., and Hellman, L. M. *Williams Obstetrics*, 13th ed. New York, Meredith, 1966, pp. 689–90.

mittee on Maternal Welfare therefore specifies that the abnormal blood pressures must be noted on at least two occasions at least six hours apart. Proteinuria must be observed in clean or catheterized urines on two or more successive days.

"Preeclampsia is classified as 'severe' if any one of the following signs or symptoms is present. If none is present the preeclampsia is classified as 'mild.'

1. Blood pressure of 160 or more systolic, or 110 or more diastolic, on at least two occasions at least six hours apart, with the patient at bed rest.
2. Proteinuria of 5 g or more in 24 hours (3+ or 4+ on qualitative examination).
3. Oliguria (400 ml or less per 24 hours).
4. Cerebral or visual disturbances.
5. Pulmonary edema or cyanosis."

G. Additional Medical Problems of the YMP Group

Three conditions are discussed in this appendix instead of in the text because adequate data were collected in New Haven only, and the conditions are such that the programs could not be expected to affect them. Rather, they reflect the impact of the social and psychological problems in the backgrounds of these girls.

Venereal Disease. Fifty-eight (32%) of the 180 young mothers were diagnosed as having venereal disease, mostly gonorrhea, at Yale-New Haven Hospital clinics or emergency room, between the time of delivery of the index child and 26 months postpartum. The most interesting correlations were between venereal disease on the one hand and length of stay in New Haven and educational status, on the other. Forty-five percent of those who had lived in New Haven less than five years had venereal disease postpartum, compared to 25% of those who *had lived in New Haven for ten years or* longer ($p < 0.001$). Also, those who stayed in school or graduated during the 26-month follow-up period were much less likely to have acquired venereal disease.

Relationship between School Status at 26 Months Postpartum and Venereal Disease during the Follow-up Period

School status, 26 mo. postpartum		Venereal disease postpartum	
	(N)	(N)	(%)
Dropped out	72	31	43.0
In school	31	8	25.0
Graduated	44	5	11.0

Clearly, venereal disease is closely associated with life style before and after delivery. Young women with a more established place in the community—longer residence in New Haven—and those with greater educational achievement, were less likely to acquire venereal disease. A possible bias in these data is that older residents or those motivated to education might have been likely to get treatment for venereal disease from private physicians. Most of the young mothers, however, used the Yale-New Haven Hospital emergency room and clinics for their care.

Suicide Attempts. A total of 23 of the 180 young mothers (12%) made at least one documented suicide attempt during the 26 months following the birth of the index child. Those who subsequently attempted suicide were much less likely to keep antepartum clinic appointments ($p < 0.01$) or to return for a postpartum clinic visit ($p < 0.01$), and they were far less likely to graduate. Those who subsequently made suicide attempts may have been showing some of their problems earlier by less participation in the medical and educational parts of the programs.

Referrals to the Psychiatrist. The 25 girls referred to the psychiatrist during pregnancy and the immediate postpartum period tended to be somewhat younger than average for the program. Also, white girls were more likely to be referred. The psychiatrist noted that the referred white girls came from homes that were more disturbed than those from which the black girls came.

The most striking clinical finding among the referred girls was that psychotic symptomatology was seldom found, and alcoholism and drug abuse also were not often seen. Rather, the referred girls appeared depressed, and the pregnancy seemed to represent an attempt to ward off this depression. Origins of the depressed feelings could be found in the frequent history of early maternal deprivation. Many of the girls' mothers were alcoholic. Possibly these girls might experiment with drugs or alcohol when pregnancy no longer helped relieve feelings of anger and depression.[1]

H. Rates of Leaving School and Reentering at Different Times

In order to determine the crucial points for interrupting education, the transitional probabilities were calculated (Table H-1, col. 2). As applied here these give the probability that a person in a given situation at one point in time will remain in that situation at a subsequent period. Thus in Table H-1, those who were in school during pregnancy had an 86% chance of being in school at 3 months postpartum, and those who were in school at 3 months postpartum had a 70% chance of remaining in school or graduating by 15 months postpartum. Use of the transitional probabilities in a modified life table, column 2, shows the proportion of those in school at time x that would have remained in school to the next time of measurement.

Thus the final proportion (49%) reflects the proportion of the total sample which would have stayed in school continuously throughout the study period. A higher percentage was in school at any point in time than shown by column 1; the difference reflects the presence of returnees.

It is interesting that, although the IAS girls did not drop out as rapidly during the first year as the YMP girls, the second year saw an increased rate of loss, and the final proportions estimated by this modified life-table approach are not greatly different in the two programs. This approach reveals the difficulty of keeping the girls in school and suggests that the first year postpartum is especially crucial.

Tables H-3, H-4, and H-7 are similar in concept but show the probability of remaining a dropout during successive periods for those who have dropped out. These data consistently discourage the idea that it is possible to get the subjects back on a continuing basis once they have dropped out. Keeping them in school is more likely to be successful.

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[1] Lewis, D. O., Klerman, L. V., Jekel, J. F., and Currie, J. B., "Experiences with Psychiatric Services in a Program for Pregnant School-Age Girls." *Social Psychiatry, 8* (1973), 16–25.

Table H-1. Probability of Graduating or Remaining in School or Graduated, YMP Sample

Point in Time (x)	1.[a] Probability of Remaining in School or Graduated from Registration to Specified Point in Time (l_x)	2. Probability of Graduating or Remaining in School or Graduated[b] $(1 - q_x)$
At registration	1.00	
		0.99
During pregnancy	0.99	
		0.86
3 Months postpartum	0.85	
		0.70
15 Months postpartum	0.60	
		0.82
26 Months postpartum	0.49	

[a] Each number in column (1) was created by multiplying the proportion directly above by the probability above and to the right.

[b] These are the transitional probabilities between specified points of time, obtained directly from the data.

Table H-2. Probability of Graduating or Remaining in School or Graduated between Any Two Points in Time, Starting with Those in School at Registration only, YMP Sample

Time	(1)	(2)	(3)	(4)	(5)
(1) At registration	1.00				
(2) During pregnancy	0.99	1.00			
(3) 3 Months postpartum	0.85	0.86	1.00		
(4) 15 Months postpartum	0.60	0.60	0.70	1.00	
(5) 26 Months postpartum	0.49	0.49	0.57	0.82	1.00

Table H-3. Probability of Remaining Dropped out of School, YMP Sample Who Had Dropped out by Registration Only

Point in Time	1. Probability of Remaining Dropped out from Registration to Point in Time	2. Probability of Remaining Dropped out between Time Periods
At registration	1.00	
		0.77
During pregnancy	0.77	
		0.84
3 Months postpartum	0.65	
		0.87
15 Months postpartum	0.57	
		0.87
26 Months postpartum	0.49	

Table H-4. Probability of Remaining out of School between Any Two Points in Time, YMP Sample

Time	(1)	(2)	(3)	(4)	(5)
(1) At registration	1.00				
(2) During pregnancy	0.77	1.00			
(3) 3 Months postpartum	0.65	0.84	1.00		
(4) 15 Months postpartum	0.57	0.73	0.87	1.00	
(5) 26 Months postpartum	0.49	0.64	0.76	0.87	1.00

Table H-5. Probability of Graduating or Remaining in School or Graduated, IAS Sample

Point in Time	1.[a] Probability of Remaining in School or Graduated from Registration to Specified Point in Time	2. Probability of Graduating or Remaining in School or Graduated[b]
During pregnancy	1.00	
		0.85
3 Months postpartum	0.85	
		0.83
15 Months postpartum	0.71	
		0.73
26 Months postpartum	0.52	

[a] This column is created by multiplying the proportion in column (1) directly above by the probability above and to the right.

[b] These are the transitional probabilities between specified points of time, obtained directly from the data.

Table H-6. Probability of Graduating or Remaining in School or Graduated between Any Two Points in Time, IAS Sample

Time	(1)	(2)	(3)	(4)
During pregnancy	1.00			
3 Months postpartum	0.85	1.00		
15 Months postpartum	0.70	0.83	1.00	
26 Months postpartum	0.51	0.60	0.73	1.00

Table H-7. Probability of Remaining Dropped out of School, IAS Sample[a]

Dropped out by	1. Probability of Remaining Dropped out from 3 Months, Postpartum to Specified Point in Time	2. Probability of Remaining Dropped out between Time Periods
3 Months postpartum	1.00	
		0.72
15 Months postpartum	0.72	
		0.90
26 Months postpartum	0.65	

[a] All study participants attended the IAS school since this was a criterion for intake into the sample.

THE ATLANTA ADOLESCENT PREGNANCY PROGRAM:
A PROFILE OF THE STUDENT MOTHER

A Final Report
to
Division of Research
Maternal and Child Health Service
Department of Health, Education, and Welfare

Prepared by

Ann Meyerson Gold, M.Ed.
Research Assistant

Jarvis Barnes, Ed.D.
Assistant Superintendent
for Research and Development

Alonzo A. Crim, Ed.D.
Superintendent

Atlanta Public Schools
224 Central Avenue, S. W.
Atlanta, Georgia 30303

with
the Cooperation of
Emory University School of Medicine

Conducted under HEW Grant
#MC-R-130063-010

30 September, 1974

ACKNOWLEDGMENTS

During the span of the Atlanta Adolescent Pregnancy Program many individuals have contributed their creativity and expertise. I would like to acknowledge those people with whom I have personally been affiliated in the final phase of this study.

The study of the student mother, her attendance and delivery patterns, could not have been evolved without the previous research of Frederick S. Kopp. The assistance of Dr. Leulla Klein, the Director of Grady Memorial Hospital Maternal and Infant Care (MIC) project was also essential. Her cooperation enabled us to collect and consolidate the necessary patient information. Instrumental in the processing of the data were Ron Wood and Susanne Randall of the Emory University Computer Center.

The assessment of the school system with regard to the policy permitting pregnant students to remain in classes involved the participation of many. On every level from the Area Superintendents to the high school and middle school staff, we received encouragement and cooperation. Extremely helpful in the development of the survey format was Catherine Binns, Coordinator of School Health Services.

Special acknowledgment is extended to George Puckett for his attractive cover design.

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INTRODUCTION

The present publication represents the concluding research on the Atlanta Adolescent Pregnancy Program. While it is the termination of the official study of the pregnant adolescent in the schools, it is not the end of concern for this segment of the population. The summation of the original health program and the subsequent studies provided a strong theoretical model for comprehensive services. The innovative Atlanta Public Schools policy also stemmed from this concern for equal treatment of all students.

Through an evaluation of the inclusion of pregnant adolescents in the schools, many relevant insights developed. In the following discussions, both the strengths and weaknesses of the existing policy are presented. A profile of the student mother, her capabilities, needs, and potentials are portrayed. What emerges from this study is the affirmation of the basic rationale for the project. The Atlanta Adolescent Pregnancy Program provided teenage girls with the opportunity to continue their education and to receive appropriate medical care during their pregnancies. The research indicates that this was a crucial need for these young females.

The program in the Atlanta area must be considered as a successful model. It is not a unique experiment but rather a viable means for assisting the pregnant adolescent and student mother population. The effectiveness of the new policy demonstrates the applicability of these innovations to all school systems. This youthful segment deserves the same educational benefits offered to all adolescents throughout the nation.

OVERVIEW

In accordance with the funding grant of the Atlanta Adolescent Pregnancy Program (AAPP) for 1973-74, the final phase considered three areas of inquiry. The following research was conducted through the Atlanta Public Schools with the cooperation of Grady Memorial Hospital Maternal and Infant Care Project.

Since the 1971 school policy on pregnant students (see Appendix A), questions concerning the student mother have arisen. To facilitate a better understanding of this segment of the adolescent population, an assessment of the girls and their experiences within the system was undertaken. The research yields a composite view of the pregnant adolescent and illuminates some very real concerns. Poignant issues such as repregnancy, physical and psychological needs, and the responsibility of educators and health workers were identified in this profile of the student mother.

Three studies were conducted as segments of the assessment: Study I -- A profile of the pregnant adolescent with regard to school attendance and delivery patterns. Included in this investigation was an assessment of the effects of the school policy change. A comparison of the findings from 1971-72 with the second year of policy implementation, 1972-73 was included. Study II -- The extent of recidivism among the student mother population. To obtain some insight into the repregnancy of these adolescent girls, their school attendance, the length of time between pregnancies, and their ages at time of motherhood were examined. Study III -- The effects of policy change on the high schools and middle schools. Within the Atlanta system a survey of school nurses, counselors, and social service workers was conducted to assess the existing situation and to develop recommendations for a comprehensive educational program in family and sexual development.

Study I

Statement of the Problem

The adolescent mother has been identified as a poor school attender. She demonstrates an average daily attendance below the city-wide mean. Preconceptual, interpartal, and postpartal data were examined in the Atlanta Adolescent Pregnancy Program (AAPP) report to determine the pattern of attendance for 1971-72. It was found that they are poor attenders to begin with, "While the girls do come back to school after delivery, they still do not come near the attendance which should be expected of students who are to do well in school."

The present research was planned to determine if the attendance and withdrawal trends identified in the 1971-72 target group should be re-exhibited in a similar group for 1972-73. Since the policy permitting pregnant girls to remain in the classroom was issued in May, 1971, the initial study involved girls during the first year of policy change.

The second full year of policy implementation corresponded to the target group to be studied in the present investigation. It was anticipated that there would be an increase in the number of girls identified due to the continuation of the policy. As the system became more accustomed to the concept of the pregnant student, the climate would be more conducive to voluntary continued education and improved attendance for adolescent mothers. The four schools yielding significant target groups were re-examined by the devised computer match. Data were collected to determine if the attendance and withdrawal trends for the second year were similar to the findings in the initial study.

Design

The design for this phase of the study was descriptive in nature. As in the previous research, the data collection did not involve manipulation of variables by the researcher. The critical variables considered in the study were: Identification of target group (match of delivery information and school attendance), daily attendance records for target girls, respective ages of subjects, withdrawals from high school, and the comparison of information for the two respective target groups.

Subjects

In the previous research, a total number of 284 pregnant adolescents were identified. The field was scanned for seven high schools in the 1971-72 inquiry. Three schools yielded low returns and were not included in many subsequent computations. With the exclusion of thirty-four original target groups, the number of adolescent mothers in the four schools during the first year of policy implementation was 240.

The 1972-73 target groups included 185 girls. Only statistical information was provided on these girls to maintain the legally required anonymity. It must be emphasized here that the group identified does not necessarily represent all pregnant adolescents in the four high schools, rather it focused on those girls who delivered at Grady Hospital and were consistent in the use of surname.

Procedure

To obtain the 1972-73 target group a computer tape was constructed from the records of four Atlanta Public Schools. These tapes contained attendance information for all female students. The list was then matched by computer with Grady Hospital's records of delivery. A system of functional attendance period enabled detection of deliveries on any given date within the research time frame (see Appendix B).

In the present study, the time period included all deliveries occurring during the 1972-73 school year and the summer of 1973. The initial match ranged from June, 1971 to September, 1972. Before any analysis could be performed on the attendance information, it was necessary to devise a system for compacting the data. Since attendance would vary depending on season of delivery, a composite data scheme was utilized (see Appendix C). This process allowed a full overview of attendance patterns around time of delivery that was independent of month of delivery. In the discussions for attendance adjusted around delivery date, the data reduction method was employed.

Findings

Through the statistical manipulations described in the preceeding section, a picture of the adolescent mother for the 1972-73 year emerged. The first portion of the information describes these girls in terms of age distribution and continuation of education. It also compares them with the target group identified for 1971-72. In the additional investigation, the student mother was analyzed as a composite figure, her attendance patterns were examined with regard to delivery date, overall school attendance, and the pattern from the previous year. The following presentation highlights the factors which are important in developing an understanding of the pregnant adolescent and the student mother.

Figure 1 represents all identified pregnant adolescents in the four schools. The largest number of students are pregnant at sixteen and seventeen years of age. It is interesting to note that the eighteen-year olds comprise a smaller group than all but the youngest segment, the thirteen-year olds. Speculation of the fact offers two hypotheses, (1) eighteen-year olds are maturing and have developed strategies for coping with the potential of pregnancies, and (2) another possibility is related to the particular characteristics of the pregnant adolescent. The high rate of pregnancy among the sixteen- and seventeen-year olds may act as a screening devise. In other words, if a girl has a high probability of getting pregnant, she will do so before she reaches eighteen years of age.

In Figure 2 a comparison of the 1971-72 group and the 1972-73 group was drawn. The pattern of frequency of pregnancy by age differs for the two years. Keeping in mind that the figures represent the first and second year of the policy permitting pregnant students to remain in school, the alternatir patterns may represent a trend. In the earlier study, the highest frequency of pregnancy occurred at seventeen years of age; while in the later data, the highest frequency is at age sixteen. Following this trend, the figures for the eighteen-year olds are far higher for the 1971-72 group than for the 1972-73 girls. In addition, the latter group has a larger frequency of pregnancy at age fourteen. The two groups are almost equal in size for age fifteen despite the greater total group size in the 1971-72 data.

The trend seems evident that the girls in the second year of the study are getting pregnant at younger ages than during the first year of the policy change. It would be nice to speculate that the policy has positively influenced adolescent girls. The older girls are becoming aware of the alternatives and are protecting themselves from pregnancy. It may be that the exposure to student mothers within the schools has made the 1972-73 girls realistically consider the ramifications of having a baby. This would be in accordance with the decreasing total number of pregnant adolescents between 1971-72 and 1972-73.

The trend towards earlier pregnancy cannot be interpreted so favorably for the younger students. The early teen years are a highly vulnerable period of adjustment. While their older sisters may be developing more sophisticated outlooks, the younger girls are having babies at a higher rate than in the previous year. Questions such as peer pressure, status awards, and inability to delay gratification must be raised. Could it be that at one time, school expulsion for pregnancy served as a deterrent for these young girls? Now that they can continue in school and need not face any real personal reponsibility for having a baby, there is no need for preappraisal.

The less mature adolescent may be impressed by the pregnancy of her schoolmate. She may envision having a child as a prestigious act in which she gains recognition and an air of womanliness among her peers. The introduction of expectant mothers in the schools, prior to adequate guidance programs and educational presentations, could have an unfortunate influence on the more susceptible members of the school community. The young students may have mistaken the new policy as a sanction for becoming pregnant. While it is too early to draw any firm conclusions from this trend, the possibilities of a negative effect on the younger high school segment must be considered and watched carefully.

In the analysis of Continuing versus Terminating Pregnant Students by Age, some interesting differences were evident (see Figure 3). The t test of correlated means showed that the difference of those students that continue in school after pregnancy is significantly higher than those who terminate school (significant .01). At no age level do terminating students exceed continuing students. For the 1972-73 school year, it was encouraging to see the high number of younger girls who were remaining in their classes. Although these girls are becoming pregnant with a greater frequency, the large majority of fourteen- and fifteen-year olds are not terminating their education. The new school policy is accomplishing its purpose. The pregnant girls are continuing in the schools.

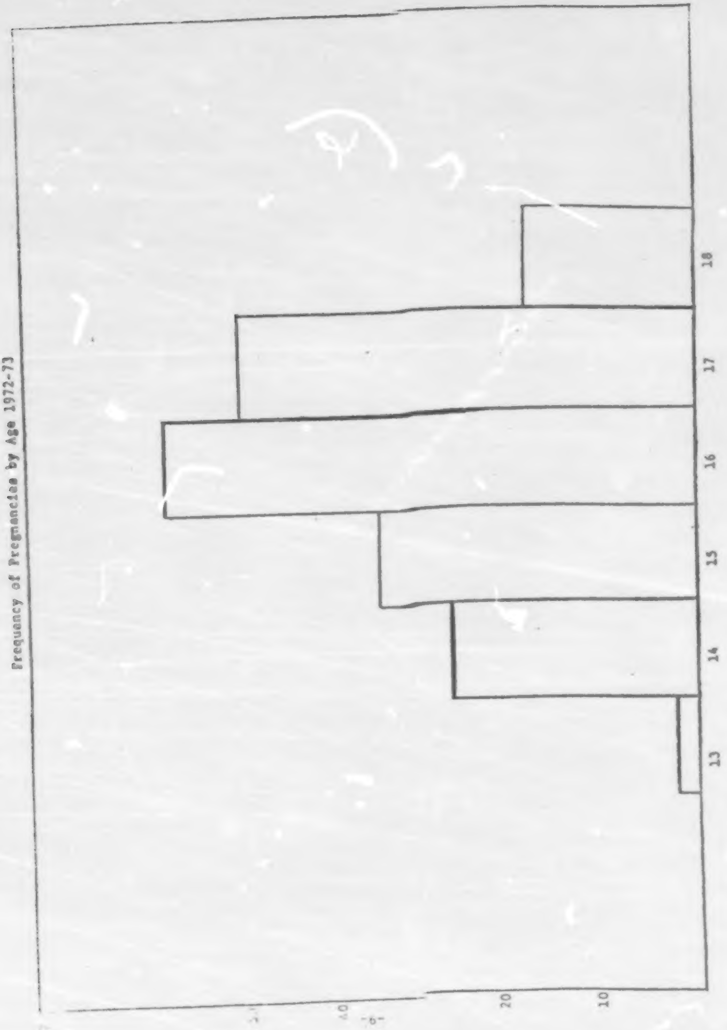


Figure 1

Frequency of Pregnancies by Age 1972-73

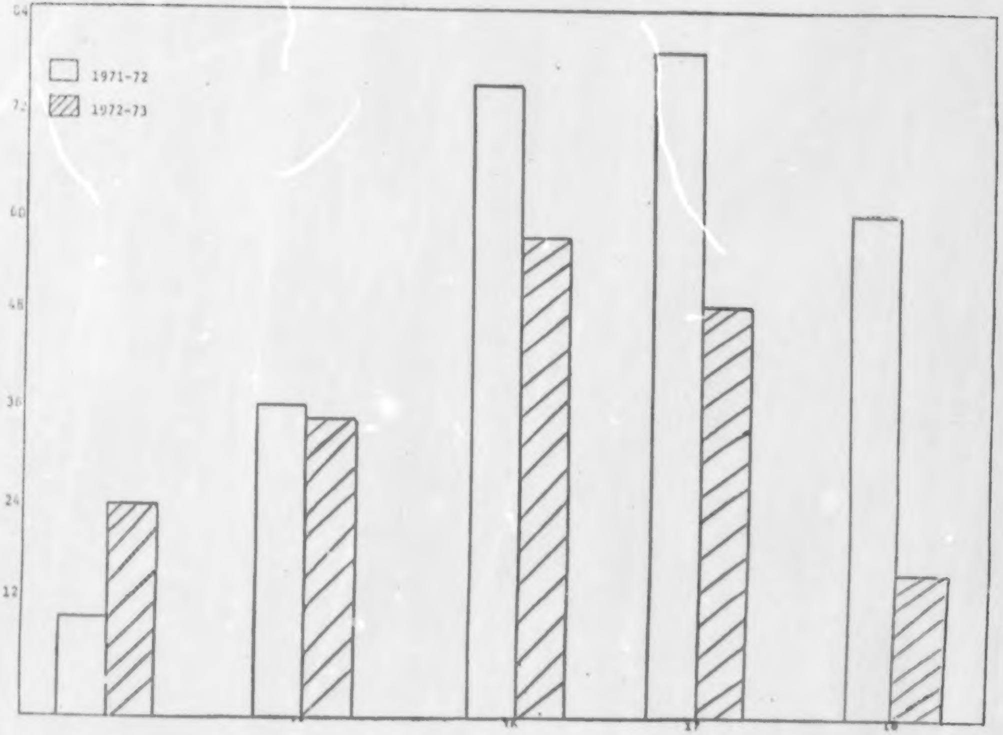
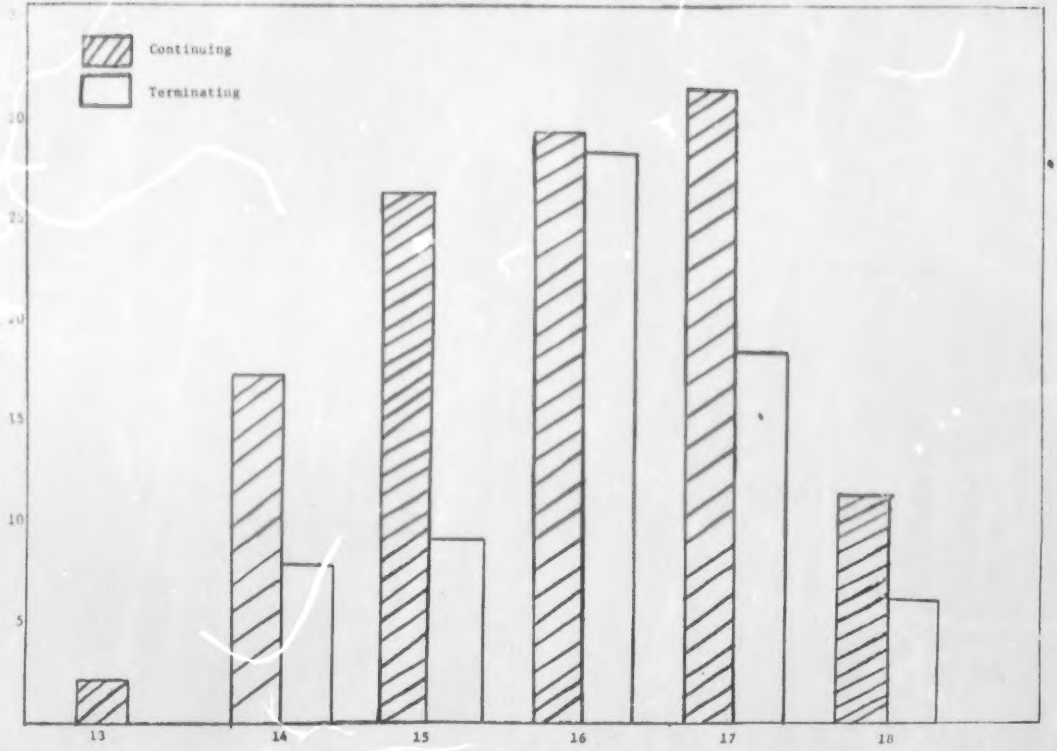


Figure 2
Comparison of Frequency of Pregnancy by Age -- 1971-72 and 1972-73

Figure 3

Continuing Vs. Terminating Pregnant Students by Age 1972-73



The data for the sixteen-year-old group are somewhat unexpected. This group for the second year of policy implementation has the largest number of pregnant adolescents. The figures for both continuing and terminating students are higher at age sixteen than at any other age level, yet the difference between the remaining and withdrawing students is the smallest. Most of these girls are in their sophomore or junior year of high school with only a year or two until graduation. They would be expected to resemble the pattern for the fifteen- and seventeen-year olds, who both had large percentages of continuing pregnant students as compared to terminating pregnant students for their respective age groups. Why these girls should be dropping out of school at a disproportionately high rate is not readily apparent. What is evident, however, is the extreme vulnerability of this group. With the largest pregnancy and termination numbers, the sixteen-year-old girls are in need of additional assistance from the educational institutions. These young girls need guidance in selecting positive alternatives for themselves.

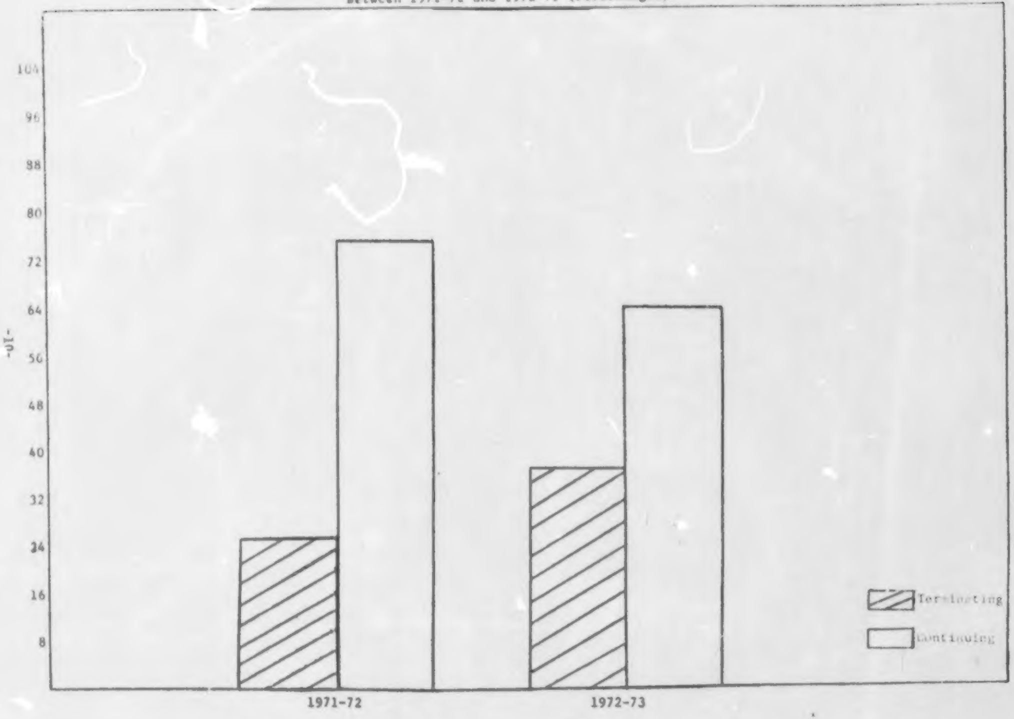
To extend the analyses of continuing and terminating pregnant students, a percentage comparison between the 1971-72 and 1972-73 data was made (see Figure 4). During the second full year of policy implementation, the percentage of students continuing was approximately 30 per cent higher than those terminating. When looking at these figures in contrast to the ones for the previous time period, a decrease in the percentage of continuing students is noted. In 1971-72 approximately 26 per cent of the pregnant students terminated, while in 1972-73 the figure was about 36 per cent.

The increase in the number of pregnant students discontinuing their education need not be interpreted in an unfavorable light. Since there was an overall decrease in the number of pregnant girls (55 less in the four schools for 1972-73), the general movement may be away from adolescent pregnancies. If there are deferring factors operating, some of the more stable girls may not be getting pregnant. In the previous years, these girls, or girls with similar characteristics, would have been pregnant, but also would have comprised the proportion of girls opting to continue school.

It is also feasible that the schools exerted a greater effort during 1971-72 to encourage pregnant students to stay in school. After the initial emphasis, the administration may have lessened its concentration on this policy. The pregnant girls were not receiving as much external reinforcement from the school system to continue. In addition, the four study schools had received much attention in this area in the preceding year; three of them were involved in the service oriented AAPP of 1971. In the 1972-73 school year, students and teachers were questioned about their response to the new policy. The pregnant adolescent was the focus point of many educators and administrators. In other words, the atmosphere was very conducive to continuation for many young mothers. Now that the controversy has lessened, pregnant students are not under as close of scrutiny. While it is a positive step that the pregnant adolescent is no longer singled out, the casual acceptance of this status may have eliminated some reinforcement for these girls.

Figure 4

Comparison of Continuing and Terminating Pregnant Students
Between 1971-72 and 1972-73 (Percentages)



Termination from an Atlanta school is coded according to a standardized list of reasons for withdrawal. This information is presented in Table 1 for all terminating female students in the four study high schools for 1972-73. For purposes of analysis, both the withdrawal reasons of pregnancy and graduation have not been included. The reliability of the reasons stated by students for termination cannot be verified. Since so many of the target group have reasons other than pregnancy for withdrawal from schools, it can be assumed that the table information is not totally accurate. The code of nonattendance is applied to a student when she reaches age sixteen. Consequently, a girl may have informally withdrawn several months earlier but been carried on the school records until her sixteenth birthday. This fact may be important in the present study since almost 50 per cent of the pregnant girls are listed as withdrawals for nonattendance. For the pregnant adolescent, termination from school may not be a formalized process, but rather a matter of circumstance. It is also interesting to note the range of reasons given for termination. The pregnant adolescent is hesitant to give pregnancy as a reason for withdrawal.

TABLE 1

WITHDRAWAL AMONG TERMINATING NONPREGNANT FEMALE STUDENTS AND PREGNANT STUDENTS 1972-73
(Per Cent of Withdrawal Codes Reported)

Withdrawal Code	Terminating Nonpregnant Female Students	 Pregnant Students
Transferred within school system	22.3	18.2
Transferred outside school system	22.8	1.8
Left area -- address unknown	6.2	3.6
Deceased	1.0	0.0
Married	2.6	1.8
Request of parents	7.8	10.9
Nonattendance	30.6	47.3
Lack of interest	1.8	5.5
Work	3.9	3.6
Medical certificate	0.0	7.3
Total	99.0*	100.0

Note: Figures do not include withdrawal code of pregnancy or graduating.

*Due to rounding error.

When these withdrawal codes were numerically broken down for each category, the frequencies for pregnancy was included. There was a somewhat startling discrepancy between the number of students indicating the code for pregnancy who were in the total population and those identified through the Grady Hospital match. Of the target group, nineteen students stated pregnancy as reason for withdrawal. Five of these girls subsequently returned to school, thus reducing the calculated number to fourteen. From the statistical information available on four schools, sixty-two girls withdrew for reason of pregnancy. This left forty-three definitely identified pregnant girls who were not indicated in the computer match between the Atlanta Public Schools and the Grady Hospital maternity records.

As evident from the wide range of reasons listed for withdrawal, pregnant students need not state their condition as reason for termination. While there is no way to determine what percentage of the total female withdrawal was really due to pregnancy, one assumption is evident. The total number of student mothers for 1972-73 exceeds the target group of 185 by at least forty-three girls. By design, it was impossible for the computer match to identify those girls who did not deliver at Grady Hospital. If the girls were not consistent in the use of surname in both their academic and medical records, they also would not have been identified.

The number of pregnant adolescents in the four high schools is probably in excess of 225. However, since the study is primarily focused on a composite view of the student mother; the discrepancy in the actual number of girls is not crucial. The findings for 1972-73 were also based on the same identification procedure utilized in the present study. The comparisons for the two years both exclude a similar group of pregnant adolescents. While many research questions can be raised about this group of nonidentified pregnant students, this is beyond the scope of the study prospectus. At present, the data and interpretations must be based on the positively identified target groups.

The attendance patterns for the pregnant and nonpregnant female students were traced from September, 1972 through February, 1974. Figure 5 shows that the pregnant group averages about four to five more absences per attendance period than do the other female students. The large attendance discrepancy between the groups is influenced by the statistical nature of the pregnant group. The data for all pregnant students include absence for delivery and carries some girls who have in actuality withdrawn for reason of nonattendance.

When the attendance patterns for the 1972-73 groups were re-examined with the exclusion of the terminating pregnant girls, (Figure 6), the findings were more heartening. While there was still a difference between the two patterns, it only varied by an approximation of three days. Since many of the nonterminating pregnant girls may have been absent for an extended maternity period, the average for this group would be lowered. In considering the overall attendance records, it does not appear that the continuing pregnant girls were having problems with school attendance. They appear to have a few more absences due to their own condition or possibly to the health of their child, but in general they are making an effort to remain in school and continue their education.

The patterns for the target girls were adjusted around the delivery date to yield information on pre and post partum school attendance. In Figure 7, a breakdown by age was constructed. The figures at ten months prepartal (-10) represent a baseline of attendance prior to pregnancy. It may also be beneficial to remember that the highest percentage of terminating pregnant students is found at age sixteen. The figures for the fourteen- and fifteen-year olds show relatively low frequencies of withdrawal. In analyzing the present data, it is difficult to make any generalizations; however, the following comments add some interesting insight.

The fourteen-year olds are poor attenders prepregnancy. The possibility of a correlation between inadequate school attendance and early pregnancy can only be speculated. It does seem evident that this youngest group of girls had difficulty in maintaining school attendance during the span of their pregnancy and subsequent childbirth. When these girls are in their fourth and fifth months of pregnancy, their attendance fell to an extreme low of less than 50 per cent. Their pattern is erratic throughout the twenty-month period and never does reach the level of the attendance of nonpregnant females.

The pattern for the fifteen-year olds shows a better adjustment to pregnancy than does the one for the younger girls. They seem to make a conscientious effort to remain in school prior to the legal age for withdrawal. Although their attendance dropped the lowest at delivery date, they make a steady effort for good post partal attendance.

Although the sixteen-year-old group has the largest propensity for termination of education, their attendance pattern does not reflect this. The figure for this group is relatively stable with a steady increase after delivery. These girls do not demonstrate considerable attendance difficulties as adolescent mothers. At ten months after delivery, their attendance figures are at the lower range of average attendance for nonpregnant girls.

The seventeen-year-olds experience the least alternation in attendance patterns due to pregnancy. Whether their stability can be attributed to better physiological conditions, psychological adjustment, or a combination of factors is difficult to judge. The older girls are better able to maintain their dual roles as mothers and students. It is expected that the attendance drop at the end of the time period could be a sympton of "senioritis" and is completely divorced from the present issue.

Figure 5

Attendance Pattern of Pregnant and Non Pregnant Female Students 1972-73

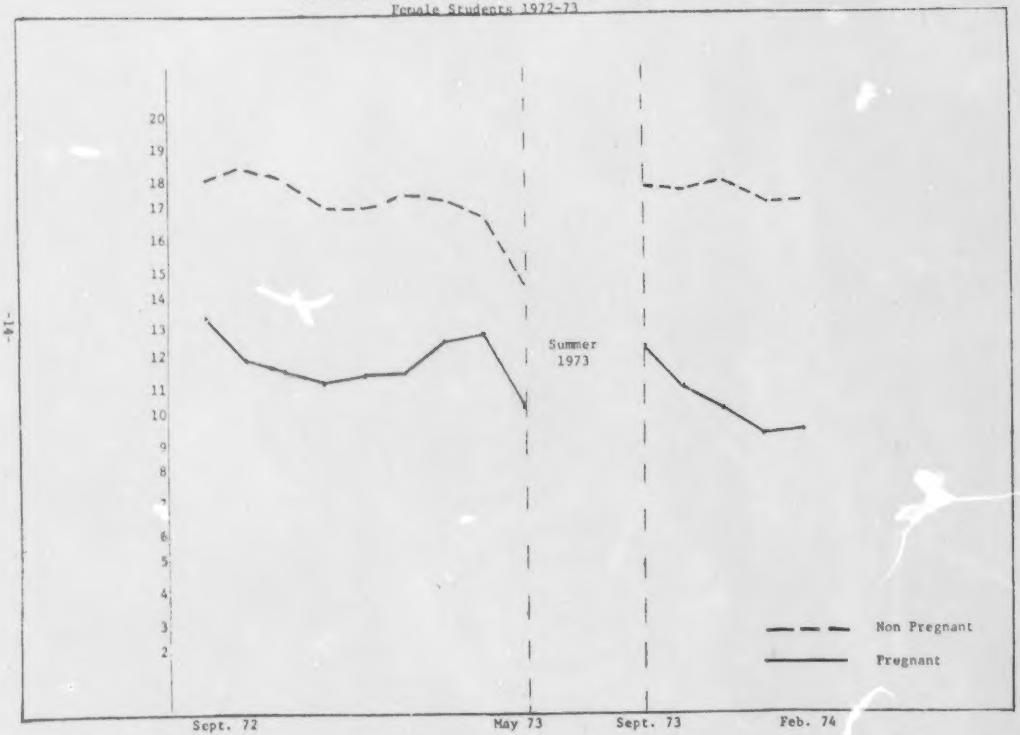


Figure 6

Attendance Pattern of Continuing Pregnant Students and Non Pregnant Students (Female) 1972-73

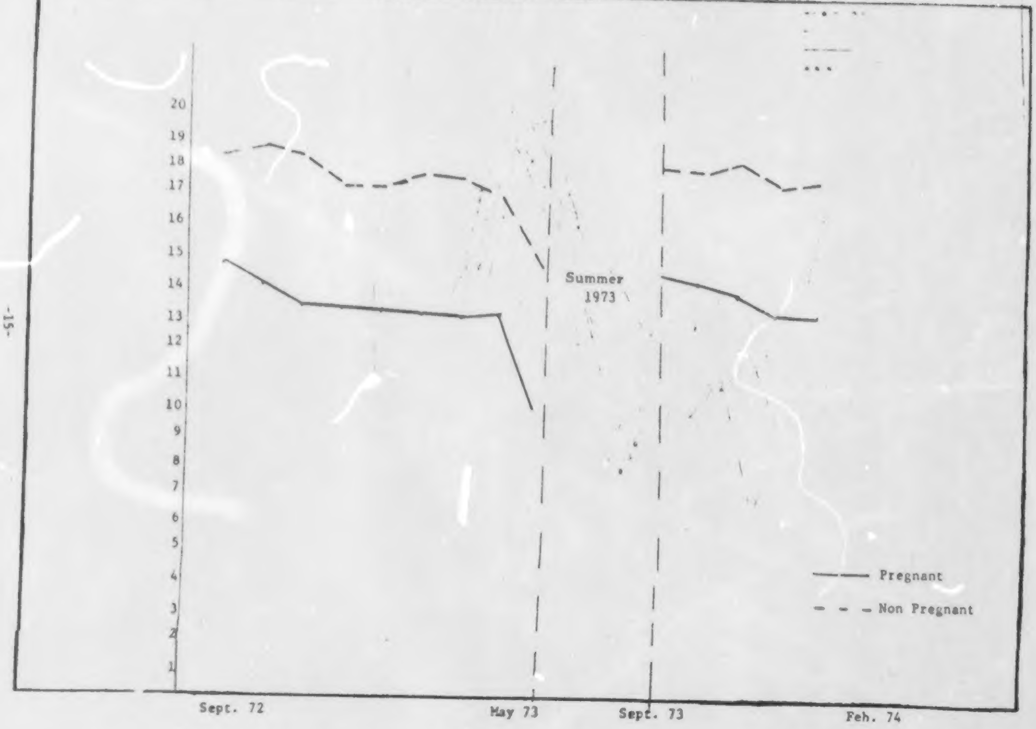
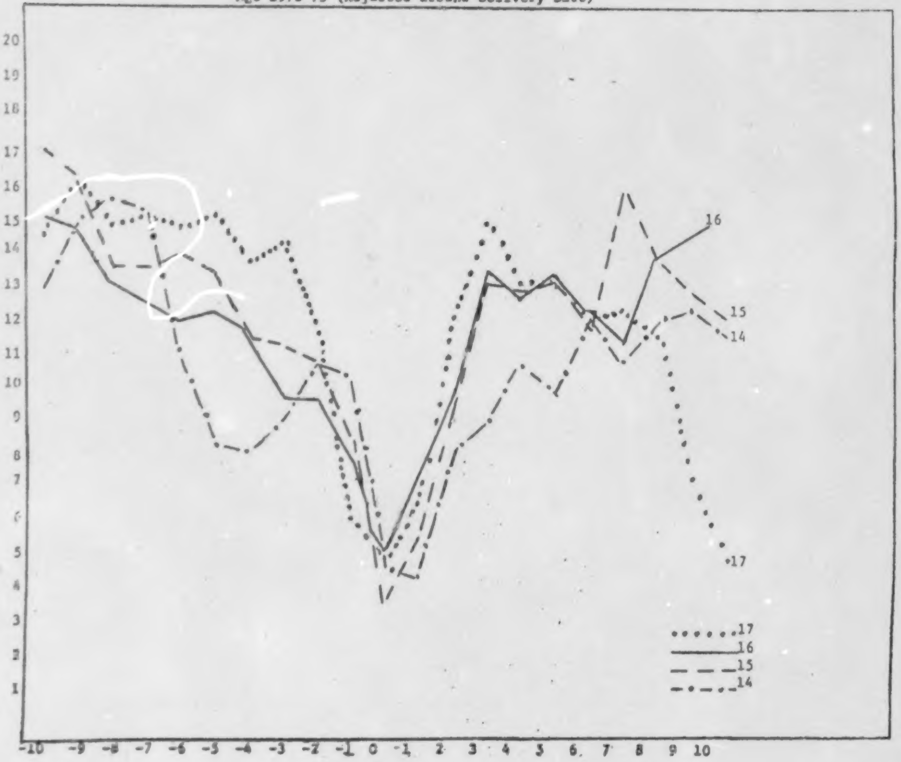


Figure 7

Attendance Pattern of Pregnant Students by
Age 1972-73 (Adjusted around Delivery Date)



The comparison of attendance patterns for continuing versus terminating pregnant students (Figure 8) yields a statisically significant difference (significant .01). Throughout the time period, there is a considerable difference between those girls who continue their education and the terminating girls. Poor attendance can be reflective of inadequate school adjustment. The relationship between nonattendance and withdrawal from school appears to be an important factor in the behavior of the pregnant adolescent population.

The question of adjustment for the pregnant student during the second full year of school policy is addressed in Figure 9. The attendance for the girls in 1972-73 exceeds that of the 1971-72 group. The more casual treatment of these girls, especially postpartum, may encourage them to come to school more often. The dual role of student and mother is no longer a novelty. The girls are comfortable in continuing in their own schools to pursue their education.

Summary and Discussion

The opportunity to generate information on pregnant adolescents and student mothers is a unique situation. The innovative policy of the Atlanta Public Schools must be considered a success. The overall number of girls getting pregnant is statistically decreasing, as evident from the numerical drop from 1971-72 to 1972-73. In addition, the school policy encourages pregnant students to remain in their regular classes. A significant number of this group are continuing their education. While the attendance of these girls suffers slightly during the maternity period, they are returning to school after delivery in an encouraging upward trend.

The research indicates the need for additional study in some areas. Intervention strategies should be developed to further reduce the number of withdrawals. The increasing number of young pregnancies should also be investigated. More exact methods for identifying the total frequency of pregnancies could be utilized. While an assessment of the policy implementation within the high schools is reserved from section three of this report, the general findings are evident. The study segment of the adolescent population is demonstrating a desire to remain in school during pregnancy and to continue their education after delivery. The school policy has contributed a meaningful amendment to the positive development of those adolescent girls.

Figure 8

Attendance Pattern of Continuing Vs. Terminating Pregnant Students 1972-73 (Adjusted around Delivery Date)

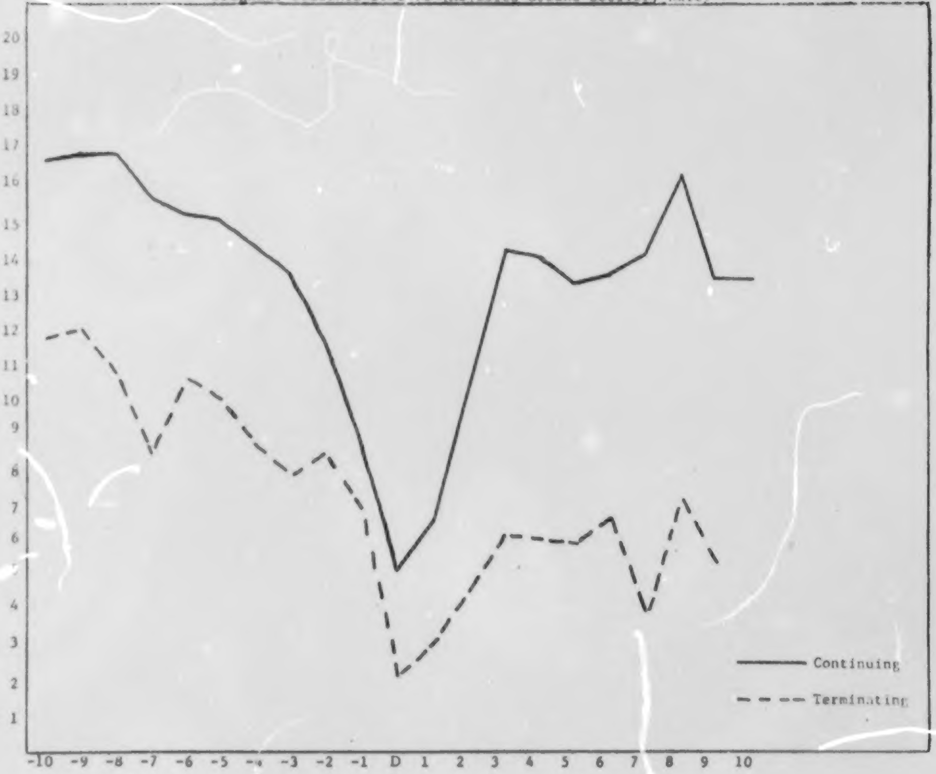
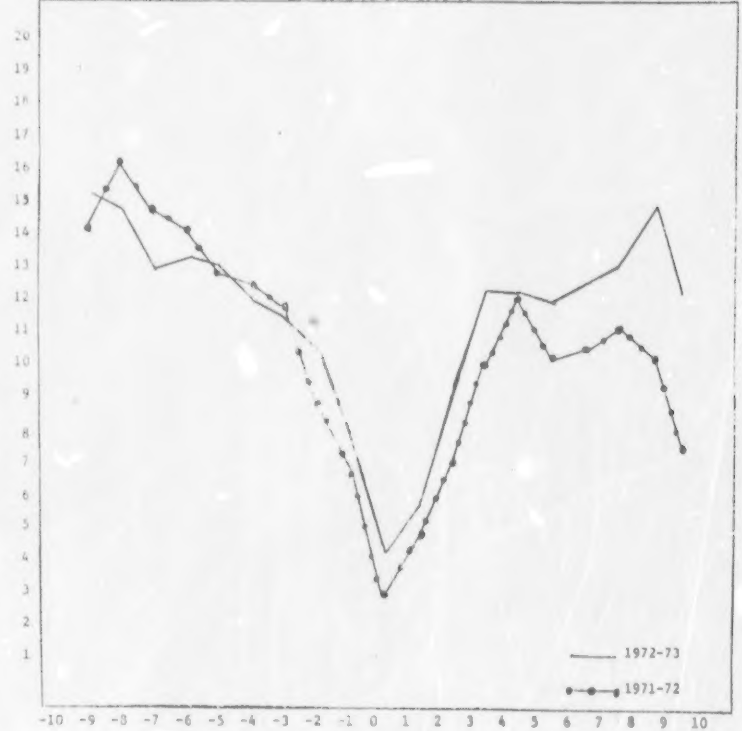


Figure 9

Attendance Patterns of All Pregnant Students
for 1971-72 and 1972-73



Study II

Statement of the Problem

The questions which arise when studying the adolescent mother population are numerous. In Study I, the girls, their school attendance, and withdrawal patterns were considered. As the population was identified and school policy was liberalized, it became necessary to further question the nature of the student mother. Was her pregnancy a one-time happening? Did one pregnancy serve as a deterrent to further pregnancies? Did school policy have an effect upon the rate of pregnancy? Was the student mother population comprised of various segments with differing characteristics?

Without a measure of recidivism for the target group, it is not possible to thoroughly understand the needs of the student mother. The school system cannot develop counseling programs, relevant curriculums, or educational alternatives without this inforamtion. The task of identifying multiple pregnancies for the teenage population is not an easy one. While Grady Memorial Hospital had data on their ICC patients, this was a select group. It was comprised of adolescents who voluntarily used the services of the Intervention Clinic. Their recidivism information could not provide a representative sample of the pregnant adolescents within the Atlanta Public Schools.

The identification of double pregnancies from the target group had to be attacked through the utilization of both school and hospital records. In previous years, girls were forced to resign for reason of pregnancy. Thus, the question of subsequent births could not be identified through school files. Only since the policy implementation in 1971 were pregnant girls "legally" permitted to remain in school. The short time span between the policy and the present study provided only a brief period in which repregnancy could occur. Additional problems of high mobility and confidentiality of records also complicated the question.

Through the cooperation of Grady Memorial Hospital, a search of the maternity records over an extended time period was conducted. This yielded a measure of double pregnancy for the target group which could then be analyzed for various factors. Characteristics of these young mothers such as age at deliveries, time span between pregnancies, and pregnancies in relation to school policy are discussed. Study II also examines the attendance and withdrawal patterns for the young mother with more than one child.

Design

The recidivism study involved track-down procedures to identify target girls with previous or subsequent pregnancies. It involved a statistical narrowing of the field before any characteristics of the specific population could be studied. The discussion of the characteristics of this population is descriptive and does not involve any treatment or manipulation of variables.

Subjects

The number of target group girls identified as having had more than one delivery at Grady Hospital was fifteen. These student mothers were statistically found through a search of the Grady Hospital maternity records. From January, 1970 to February, 1974, the present population consists of all girls who were enrolled in one of the four study high schools and delivered one of their children during the 1972-73 school year or the following summer. Student mothers giving birth to another child both before or after the present study were included in the recidivism group.

Procedure

For the analysis of various characteristics of these adolescents, a match of statistical information was conducted. The birthdates on the double pregnancy group and the two delivery dates were provided through the computer scan. The data were then compared with the total target group to obtain additional information. The attendance patterns and withdrawal code on the fifteen girls were then available. The procedures enabled the researcher to obtain a unique picture of these girls, without abusing their right to privacy or confidentiality.

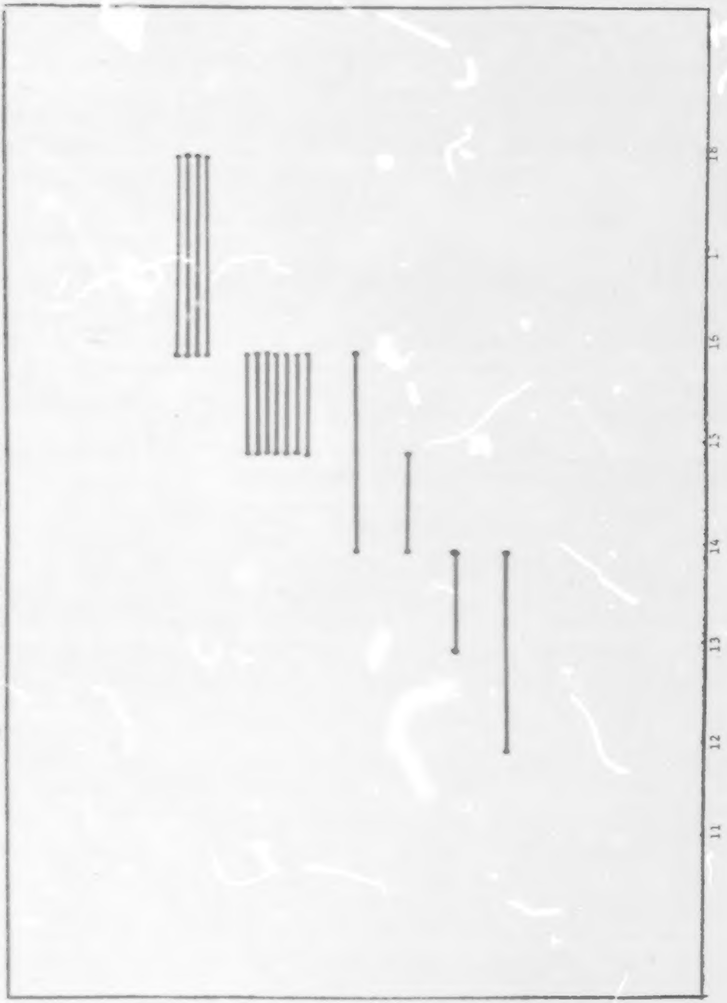
Findings

The identified group of repregnant student mothers was studied from two major aspects. They were examined as a separate segment of the population with factors unique to their situation. The questions of age at deliveries, time span between pregnancies, reaction to the policy implementation, and school attendance patterns were considered. In addition, a view of this group in comparison to the total target group and nonpregnant students within the high schools was included. The second segment analyzes withdrawal trends and demonstrates attendance variations among these three sets of adolescent girls.

In Figure 10, there are some notable similarities among the delivery ages for these young mothers. Almost half of the girls had pregnancies at ages fifteen and sixteen. While the sixteen-year-old figure corresponds to the highest rate of pregnancy found in Study I, the frequencies at age fifteen do not explain this high rate for double pregnancies. The issue is further compounded by the data for the double pregnancies at sixteen and eighteen years of age. While it is evident sixteen years of age is the most common time period for these girls to have a child, the span between pregnancies vascillates between one year younger and two years older.

Figure 10

Age at Deliveries (Double Pregnancies) Base 1972-73



For the fifteen-sixteen year old group, one explanation can be offered. The midteen years represent a difficult developmental stage. Emerging from childhood but not yet reaching maturity, the girls combine a desire for instant gratification with adolescent rebellion and a need for prestige or recognition. Without proper intervention the girl who had a child at fifteen may again become pregnant at sixteen. If she is not compelled to alter her life style because of her motherhood (i.e., school withdrawal, child care responsibility, or curtailment of social life); there may be no reason for some of these youth to refrain from having another child. If her initial delivery provided reinforcements from the environment, the girl may again seek these benefits through another pregnancy.

The girls delivering at sixteen and eighteen represent a more mature segment of the adolescent mothers. Eighteen years of age is not an exceptional age to have a child. For many, it represents graduation from high school, marriage, wage earning, and acceptance of adult status. For a girl who has had a child at sixteen, eighteen may even represent a logical time for an addition to her family. One interesting finding is the absence of any deliveries at the age of seventeen. All of the girls who had their first child at sixteen years of age waited a period of time before becoming pregnant again. This fact may be indicative of an increased ability to accept responsibility for ones actions and demonstrates the significance of high school graduation for these students.

The figures for the girls who delivered their first child prior to age fifteen are unsettling. They illustrate a tragic lack of intervention for these young girls. The physiological as well as the psychological ramifications for this group are unhealthy. It is not necessary to elaborate on the damaging effects of being the mother of two by age fifteen. What is demonstrated is the definite need for assistance for these young girls. Steps must be taken to prevent the mother of twelve years of age from again giving birth at age fourteen.

The breakdown of time span between pregnancies (Figure 11) further emphasizes a need for child development education and intervention for these girls. For the study group, the greatest length of time between deliveries was twenty-two months, less than two full years. The shortest length of time between deliveries was nine and one-half months, an unhealthy span between delivery and the second pregnancy. These young girls are not only having more than one child, they are giving birth within dangerously short periods of time. The immature reproductive system does not afford the best conditions for fetus development. When this factor is combined with the burden of an insufficient time lapse between pregnancies, the complications to both mother and infant are multiple.

This young population must be informed of the dangers to both themselves and their children. These girls must be made to realize they are jeopardizing their own health and increasing the likelihood of abnormality, prematurely, and delivery complications for their offsprings. That an adolescent would be capable of having two babies within two years, while continuing her education seems highly improbable. It is encouraging that these girls have remained within the system, but discouraging that intervention was not planned to prevent these double pregnancies.

The study period of 1972-73 was examined in relation to double pregnancies. It represents the second full year of policy implementation permitting pregnant girls to stay in school. As indicated by Figure 12, all of the girls had one of their deliveries during the specified study period. In the following time period from September, 1973 to February, 1974, only three additional pregnancies occurred. Twelve of the double pregnancies were prior to the study period. Only one of these occurred before the 1971 policy and represents a girl who was able to remain or re-enroll within the school system.

While it is difficult to generalize on recidivism trends from the short time span covered in Figure 12, repregnancy appears to be on the decrease. The students who had their first child in 1972-73 are not becoming pregnant again within as brief a time span as had occurred in previous years. It can be hypothesized that the family planning alternatives offered at Grady Hospital are having an affect upon the extent of recidivism. The now casual acceptance of pregnant students in the schools may also have lessened the reinforcements which were evident when earlier pregnancies occurred. If the teenage girl is neither punished nor rewarded for her pregnancy then the psychological motivations for becoming pregnant will be lessened.

As can be seen from the statistics in Table 2, the number of girls for a one year given period of time that have been identified through Grady Hospital maternity records is not insignificant. They represent a considerable number of adolescents, who may need assistance in continuing their education and in preventing subsequent pregnancies. With the addition of speculative figures for deliveries not occurring at Grady, (see Study I) the percentages become even more alarming. From the present figures it can be asserted that one out of every eleven target group girls that had a child in 1972-73 has had another child within a five year time period giving a recidivism percentage of 8.1.

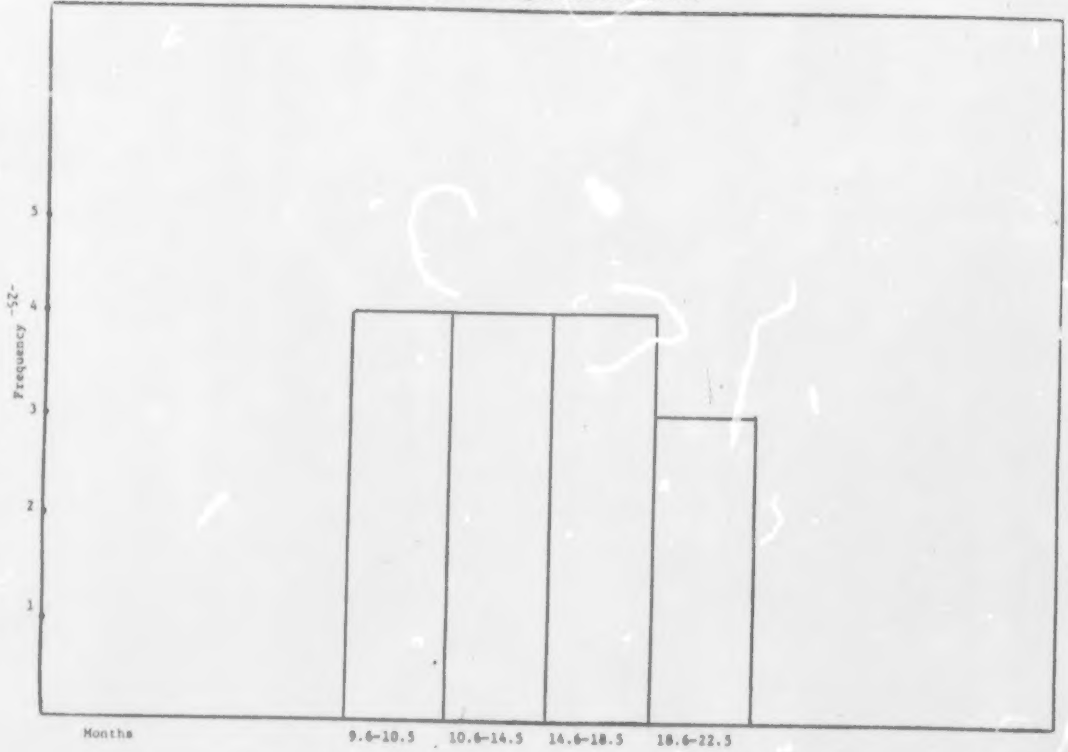
TABLE 2

REPRESENTATION OF PREGNANCIES AND
DOUBLE PREGNANCIES BASE 1972-73

	Pregnancies					
Total Female Population	No. of Single	Per Cent of Single	No. of Double	Per Cent of Double	Per Cent of Double vs. Total	Per Cent of Total
2,938	170	5.8	15	0.5	8.1	6.3

Figure 11

Time Span Between Pregnancies Base 1972-73



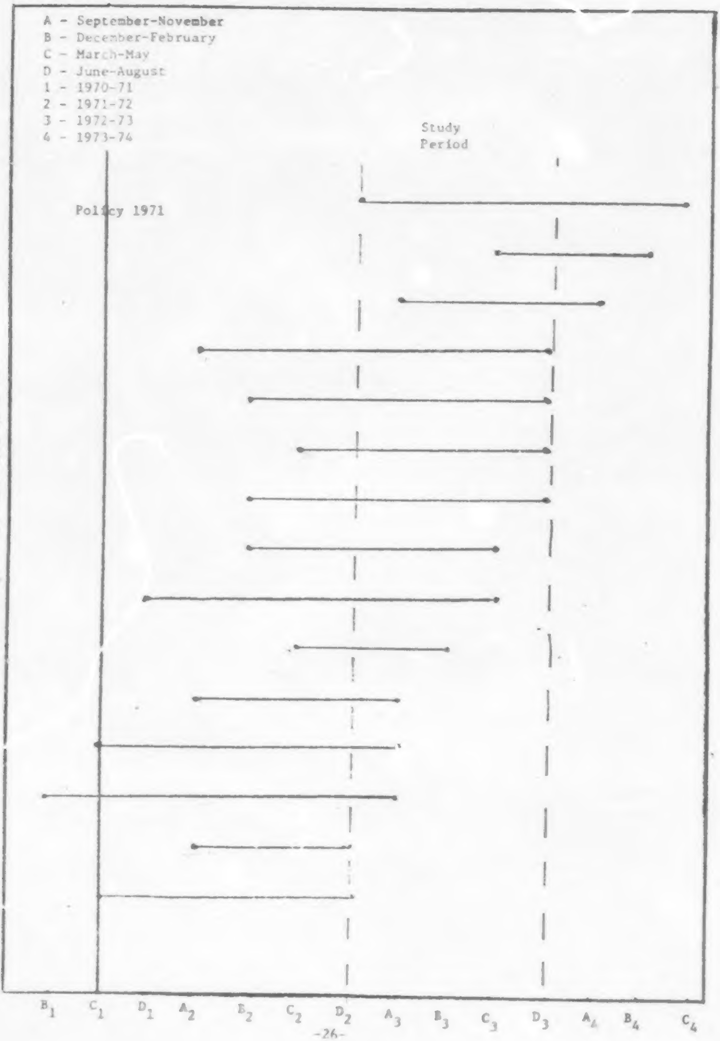


Figure 12

Dates of Pregnancies With Base 1972-73

These girls are eager to continue their education and should be provided with the academic and emotional support necessary to enable them to continue. Of the group of double pregnancies, only two withdrew from school. One of these girls withdrew to go to work; the other one was withdrawn by reason of nonattendance and later returned to continue in school. Analysis of attendance adjusted around delivery date revealed that nonterminating double pregnancy students had significantly higher attendance than that for those females who withdrew eventually (significant .01). Three of these double pregnancy student mothers graduated from high school. The percentage of the double pregnancy group terminating their education was 13.3 per cent. This corresponds favorably with the figure for terminating single pregnancies 37.3 per cent. For all student mothers, and especially for those having more than one child, the policy change was a beneficial decision which prevented discrimination against this segment of the high school population.

The comparison of attendance patterns for female students, pregnant students, and repregnant students is presented in Figure 13. The discrepancy between the attendance for all pregnant and nonpregnant students must be noted. However; with regard to single and double pregnant girls, the issue is somewhat complicated. For the first five months of the school year, the double pregnancy girls exhibit better attendance than do the single pregnancy girls. Throughout the remainder of the year, the repregnant group falls considerably in their attendance pattern. It must be noted that the large majority of these girls already have one child at home and thus have the double burden of pregnancy and child care during the warm spring months. They appear to be making a valiant effort to continue in school despite the difficulties that face these young girls.

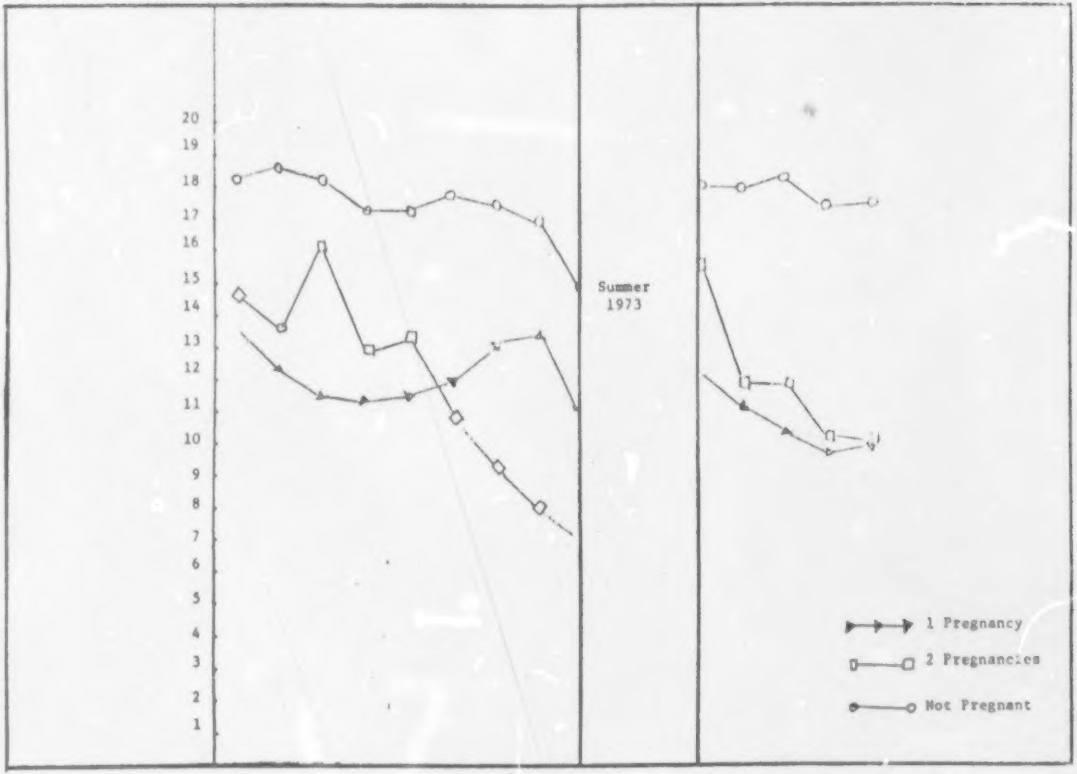
In the following school year, the rallying of these girls with two children is considerable. At the beginning of the term, they average three days more per period than do the girls with one child. Unfortunately there is soon a drop in attendance which leaves all of the student mothers ranging far lower in attendance than the other female students. This leaves the impression that these girls are anxious to continue their education, but are experiencing difficulty in acceptable school attendance. The population of student mothers, especially those with two young children, who do not withdraw from school are exceptional. In spite, of problems with pregnancy, health, child care, postpartum depression, and varying economic circumstances, these adolescents have selected to remain in school and to work toward the goal of high school graduation.

Summary and Discussion

The adolescent students who have two pregnancies emerge as a unique segment of the high school population. They differ from the total target group by the very fact of their recidivism. That these girls desire to continue their education in spite of pregnancy is an outstanding characteristic. The motivation for a high school education must be intense.

Figure 13

Comparison of Attendance Patterns
for Female Students, Pregnant Students, and Repregnant Students



While the educational system has provided these girls with the opportunity to remain in school and Grady Hospital offers intervention and family planning care, the task begun by the Atlanta Adolescent Pregnancy Program is not completed. There is some evidence that the recidivism rate is decreasing but the problems surrounding adolescent pregnancy have not been overcome. What remains is the development of strategies for total community involvement. The adolescent population must be offered a range of options for educational, vocational, psychological, and physical care. Giving birth to a child, securing an education, or planning of career should be a matter of free choice. The highly vulnerable population of adolescent student mothers must be given guidance and assistance in securing their goals and realizing their potentials.

Study III

Statement of the Problem

Present school policy allows pregnant students to remain in their classes. Health agencies report increasing numbers of requests for information and services from adolescents. The media has bombarded the public with the 'new morality' and venereal disease is at a reported all time high. Yet, there is no comprehensive program for information dissemination on family and sexual development in the public schools.

This controversy has long been a thorn in the side of school administrators and teachers alike. The topic has been shuffled from Biology to Home Economics to Physical Education classes or dismissed by an annual presentation by the school nurse. The need of high school students to be presented with a thorough and honest discussion of the "facts of life" must be acknowledged. It is painfully evident that the present curriculum is inadequate to deal with this vital concern of today's youth.

Research Inquiry

In this study, an assessment of the needs and attitudes towards sex education in the public schools was conducted. An overview of the schools, since the 1971 policy, seemed essential for identifying strengths and weaknesses. Questions regarding the responsibility of the system to the total education of all its youth were also raised.

The following areas were considered in the interview survey:

1. Information on family and sexual development disseminated within the schools.

2. An assessment of the needs of adolescent students with regard to information on family and sexual development.

3. The effects of the 1971 school policy change which now permits pregnant students to remain in their regular schools.

4. An assessment of the adolescent mother and the school system.

Subjects

All high school and middle school nurses in the Atlanta Public Schools were included in the survey. Where applicable, counselors and social workers also participated in the informal interview sessions. In many instances, the school principals also contributed their views on the topic. In total, the survey represents the opinions and feelings of nearly one hundred professionals working in the school system with the adolescent population. All interviews were coded anonymously to permit candor of response.

The questionnaire reflects the thinking of many resource personnel. Interested social service workers in related projects, such as Planned Parenthood, Child Service and Family Counseling Center, Grady Interconceptional Care Clinic, and NAACP identified areas for the inquiry. School administrators on both the central and area level were also helpful in raising issues for consideration.

Procedure

The questionnaire was administered through an interview format at each school. Responses were open-ended but designed to yield uniformity of response. The treatment of data involves a percentage breakdown based on the number of study schools (N=30). Intraschool variation in response was manipulated prior to the final computations.

Findings

The following discussion is based on the summarized data from the questionnaire results. Each of the four areas of concern yielded information relevant to the development of a comprehensive program in family and sexual development. The findings also provide an overall view of the current situation in the Atlanta high schools and middle schools.

I. Information on family and sexual development disseminated within the schools.

Primary curriculums disseminating information:

Health and Physical Education	73%
Physical Science	7%
Social Science	0%
Home Economics	20%
Not Reported	0%

Secondary curriculums disseminating information:

Health and Physical Education	17%
Physical Science	27%
Social Science	0%
Home Economics	27%
Not Reported	30%

Type of personal contact between school personnel and students:

Nurse

Liaison and Resource	40%
Personal Counseling	10%
Specific Information	7%
Multiphasic Role	37%
No Contact	7%
Not Reported	0%

School Counselors

Liaison and Resource	17%
Personal Counseling	30%
Specific Information	3%
Multiphasic Role	10%
No Contact	3%
Not Reported	37%

Teachers

Liaison and Resource	17%
Personal Counseling	13%
Specific Information	13%
Multiphasic Role	0%
No Contact	13%
Not Reported	43%

Primary source of resource personnel:

Planned Parenthood	3%
Grady Hospital - ICC	83%
Health Department and Human Resources	3%
Private (Physicians, Clinics, Organizations)	3%
No Resourses	7%

Secondary source of resource personnel:

Planned Parenthood	10%
Grady Hospital - ICC	3%
Health Department and Human Resources	27%
Private (Physicians, Clinics, Organizations)	13%
No Additional Resources	46%

Frequency of information dissemination by resource personnel:

Weekly	17%
Bimonthly	30%
Few times during school year	46%
Yearly	7%

Best areas perceived for information dissemination within the school system:

All Areas	40%
Health and Physical Education	20%
Physical Science	0%
Social Science	0%
Home Economics	13%
Specialized offering (Resource Personnel)	10%
Individual Basis	7%
Not Reported	10%

II. An assessment of the needs of adolescent students with regard to information on family and sexual development.

Proportion of school populations receiving some form of information:

Entire Student Body	40%
Three-quarters of Student Body	3%
Half of Student Body	17%
One-quarter of Student Body	23%
Minimal Proportion of Student Body	17%

Grade level at which students are receiving some form of information:

High School (all grades)	95%
High School (upper grades only)	0%
High School (lower grades only)	5%
Middle School (all grades)	86%
Middle School (upper grades only)	14%
Middle School (lower grades only)	0%

Grade level at which students should be introduced to information:

Preschool	17%
Elementary School	23%
Middle School	50%
High School (lower grades)	10%
High School (upper grades)	0%

Need of student body for information dissemination:

Definite need	80%
Need Already fulfilled	13%
Not Needed	0%
Not Reported	7%

III. The effects of the 1971 school policy change which now permits pregnant students to remain in their regular schools.

Areas in which additional services for pregnant students should be provided:

All Areas	17%
Child Care Curriculum	10%
Home Instruction	3%
Counseling	10%
Health Care	10%
No Additional Services	40%
Services Provided by Grady	10%

Changes in school atmosphere:

Better Atmosphere	36%
Worse Atmosphere	7%
More Pregnancies	7%
Less Pregnancies	13%
No Changes	13%
Not Reported	23%

Changes in number of pregnant students remaining in school:

Increase	80%
Decrease	0%
No Change	13%
Not Reported	7%

Changes in the extent of services required of school nurse:

Large Increase	0%
Slight Increase	36%
No Change	53%
Not Reported	10%

Changes in the number of student requests for information:

Increase	33%
Decrease	0%
No Change	30%
Not Reported	36%

Peers' attitudes toward pregnant students:

Acceptance	90%
Gradual Acceptance	0%
Nonacceptance	0%
Mixed Reaction	7%
Not Reported	3%

Teachers' attitudes toward pregnant students:

Acceptance	40%
Gradual Acceptance	20%
Nonacceptance	10%
Mixed Reaction	27%
Not Reported	3%

Best educational alternative for pregnant students:

Regular School	56%
Special School	10%
Individual Choice	33%

IV. An assessment of the adolescent mother and the school system.

Proportion of student mother population returning after delivery to respective schools:

Majority Returning	83%
Some Returning	10%
Minority Returning	3%
Not Reported	3%

Problems related to adolescent mothers as returning students:

Role Adjustment

Problem	20%
No Problem	73%
Not Reported	7%

Peer Sentiment

Problem	0%
No Problem	93%
Not Reported	7%

Day Care for Baby

Problem	56%
No Problem	40%
Not Reported	3%

Academic Lag

Problem	40%
No Problem	40%
Same as Before	7%
Not Reported	13%

Conceptualization of Future Goals

Verbalization of Problems		44%
Marriage	7%	
Family	7%	
Education	10%	
Career	3%	
All Areas	17%	
No Problems Verbalized		43%
Not Reported		13%

Speculative reasons for noted school attendance drop between four and six months after delivery:

Adjustment of Mother	20%
Developmental Stage of Baby	27%
Child Care Arrangement	10%
Not Reported	43%

Areas in which additional services for adolescent mothers should be provided:

Continuation of Education	37%
Child Care Curriculum	10%
Counseling	20%
No Additional Services	23%
Not Reported	10%

The first section, "Information on family and sexual development disseminated within the schools," deals with the existing educational structure. All of the schools report that information pertaining to family and sexual development is introduced through the health and physical education curriculum. The next major area, home economics, was identified by one-half (47 per cent) of the schools, and the third curriculum, physical science, was only considered a significant contributer by one-third (34 per cent) of the schools.

The health personnel surveyed described their role with students as being a multiphasic one (37 per cent), also involving liaison and resource responsibilities (40 per cent). The group indicated that school counselors served primarily in a counseling capacity (30 per cent) while teachers were seen as contributing equally as liaison and resource, personal counseling, and specific information sources.

Resource personnel were believed to play an important part in information dissemination. The major contributing agency was Grady Hospital, Interconceptional Care Clinic (86 per cent). The Fulton County Health Department and the Department of Human Resources (30 per cent) were also cited as beneficial sources of personnel. The data showed that almost half of the schools (46 per cent) reported having only one contributing agency and many of the schools (53 per cent) utilized resource personnel only on a limited basis.

The needs of adolescent students with regard to information on family and sexual development were assessed to identify areas for further consideration. The majority of the schools (57 per cent) indicated that only half or less of their students were receiving information. All grade levels in the high schools and middle schools appeared to be included in the dissemination process.

It was interesting to note that the vast majority (90 per cent) of the health workers surveyed believed that family and sexual development education should occur by the middle school years or earlier. The largest number of respondents (80 per cent) also stated that information dissemination was a definite need for their student body.

A review of the effects of the 1971 policy implementation indicated a positive change in the school environment. The interviewees expressed the feeling that pregnant students should be treated as regular students and half believed that the change had improved the school atmosphere. Although more pregnant students are remaining in school, (80 per cent of the schools reported an increase), only one-third of the nurses indicated any additional requirement of their services.

The inclusion of pregnant students in the regular school program appears to have broadened the educational experiences of both students and faculty. Within many schools (33 per cent), an increase in the number of requests for information was reported. Nearly all of the student bodies (90 per cent) were judged to have responded with acceptance to their pregnant peers, while at least 60 per cent of the faculties demonstrated acceptance or gradual acceptance. The desirability of allowing these girls to stay in school was only questioned by a small minority (10 per cent) of school workers and the general comments can be summarized as supportive of the policy.

An assessment of the adolescent mother and the school system reveals similar positive trends. The majority of the schools reported a large return of adolescent mothers to classes (93 per cent.) A discussion of the adjustment patterns of these girls indicate some areas for concern but are encouraging in general. There is a problem with the availability of day care facilities for many of the students (56 per cent.) This may account for the poor attendance of these student mothers. Some difficulty with academic makeup (40 per cent) and conceptualization of future goals (44 per cent) is also demonstrated. The school workers expressed the feeling that the psychological well being of the young mother should be considered and that additional counseling may be required. They agreed that a major responsibility of the schools was to encourage these young women to continue their education and offered many recommendations for furthering this goal.

Discussion and Recommendations

In considering the results of this survey, both the strengths and weaknesses of the present situation become evident. The Atlanta Public Schools have set a highly beneficial precedent by allowing pregnant students to remain in their regular classes. However, it is essential that they continue to develop curriculums and programs to supplement this progressive policy.

The summary and recommendations which are presented here, represent the views of the professional's survey. It is not a criticism of the system, but an applaud to its innovation and the belief that the Atlanta Public Schools have the potential to continue in this positive direction.

Recommendation: The development of a comprehensive course in family and sexual development for adolescents.

Plan: This course will be presented to all students in the Atlanta Public Schools prior to their completion of the ninth grade. The Health and Physical Education Department will include this requirement in its curriculum. It will be taught by a qualified professional who has had training in the presentation of material on human sexuality. The presently existing curriculums in the field will be examined and an appropriate outline of study will be adopted for use throughout the school system.

Recommendation: A system will be established to encourage students to utilize the services of school personnel.

Plan: The high schools and middle schools will promote an atmosphere in which the students feel comfortable seeking guidance and information in the area of family and sexual development. The school nurse will serve as a liaison and resource person; she will be knowledgeable of the services available to adolescents in the community. In addition, the nurse will use her expertise to assist students in their health needs and in obtaining appropriate referrals. The counselors will provide psychological and emotional guidance for both pregnant and nonpregnant students. The teachers will be aware of the personnel in the school responsible for assisting students in this area.

Recommendation: The cooperation of community and governmental agencies should be solicited to provide a comprehensive program for referrals and information dissemination.

Plan: At present, Grady Hospital Interconceptional Care Clinic has provided speakers for the high school population. The reception to this program has varied. All schools should utilize this opportunity to the fullest. In addition, the communication with the Fulton County Health Department and the Department of Human Resources should be extended. The adolescent population must be encouraged to receive the total benefits offered by these agencies.

Recommendation: Additional assessment should be made of the potential for the development of school/community services for the adolescent mother.

Plan: The study should include a consideration of many aspects of the psychosocial factors related to the adolescent mother population. Issues such as family planning, child care, nutrition, school attendance, career options, and academic achievements need to be examined. The feasibility of developing special classes, individual guidance, and peer counseling should also be discussed.

Recommendation: A committee should be established to develop a total educational program for introducing family and sexual development into the schools.

Plan: The area of family and sexual development should be introduced into the educational curriculum as a natural segment of daily living. Children should be familiarized with these aspects of our culture in much the same way as civics or physical hygiene is integrated. To study this proposal, a committee of educators, health workers, health specialists, administrators, parents, and community members should be formulated. The findings of this committee can then be used to develop a program of information dissemination throughout the schools.

APPENDICES

APPENDIX A

ATLANTA PUBLIC SCHOOLS
BOARD POLICY STATEMENT CONCERNING PREGNANT STUDENTS

Implemented 10 May 1971

Pregnant students are to receive the same opportunities and considerations of the Atlanta Public Schools as do other students.

Pregnancy should not be considered a condition which would exempt the student from compulsory or voluntary school attendance. It is not a condition which necessarily renders a student physically or mentally incapacitated for school work. Educational activities during pregnancy should not be considered impracticable or harmful either for the pregnant student or others.

No school official or employee should without sufficient cause exclude, expel, transfer, or excuse from school privileges any pregnant student entitled to admission as a student of the Atlanta Public Schools. When such a person has been so excluded, the principal should report such action to the office of the Area Superintendent within fifteen days.

Exclusion from school because of pregnancy, unless it is at the pregnant girl's request to participate in another educational program or to be withdrawn from school, shall not be construed to best serve her welfare or best interests. A pregnant student should have the option of remaining in her own regular school, or enrolling in another appropriate educational program planned for her, or of withdrawing from school, according to Atlanta Public Schools policies previously published. Every effort should be made to keep pregnant students in an educational program and to return them to it as soon as possible after delivery.

No pregnant student should be excluded, expelled, transferred, or excused from school privileges for reasons of pregnancy without a written certificate from a duly licensed physician. Limitations of activity and endeavor, if any, would be specifically established by such a certificate.

APPENDIX B

ADOLESCENCE

A Project for Unwed Pregnant Adolescents in Chicago*

HAROLD M. VISOTSKY, M.D.†

Here is an illuminating exploration of the attitudes to sexual behavior and early pregnancy by unmarried adolescent girls and their parents within a socio-economically deprived segment of a metropolitan population.

THE Community Services Project for unwed pregnant adolescents in Chicago is a demonstration project designed to provide comprehensive medical, educational and mental health services for unwed adolescent girls who remain in their own homes during pregnancy. Financed by a National Institute of Mental Health grant, awarded for a three-year period commencing February 1, 1963, the program is being carried on under the auspices of the Mental Health Division of the Chicago Board of Health.

The project is concerned primarily with helping the girl and her family cope more effectively with the immediate crisis of pregnancy, but seeks also through timely intervention to enable these girls to give their children a better chance for an emotionally healthy adjustment than without such intervention. The project seeks to involve all available community resources, both agencies and individuals, and to develop other services necessary to meet the needs of these unmarried mothers.

Background

The lack of adequate community services for pregnant unwed adolescents was brought originally to the attention of the Chicago Mental Health Division by Board of Health nurses, who were concerned about the increasing number of young girls coming to the Infant Welfare Stations for pre-natal care. For example, between September, 1961 and August, 1962 there were 750 unmarried pregnant girls of compulsory school age who were reported as excluded from public schools in Chicago. Most of these were under 16 years of age. This figure, furthermore, did not reflect the total number of teen-age pregnancies out-of-wedlock in Chicago during that year, since not all were reported to school authorities.

Previous experience has indicated that probably less than 30 per cent of Chicago girls excluded from school because of pregnancy returned after the enforced absence. In considering this problem, the Mental Health Division recognized that in addition to contributing to the number of school drop-outs, these young girls were ill-equipped for the responsibility of parenthood about to be thrust upon them.

Most of these girls were Negro, who came from seriously deprived socio-economic areas of Chicago where they were exposed to the multiple problems of poor housing, crowded schools, family disorganization and minimal job opportunities. They seldom maintained a plan of regular medical care and usually ended up at the County Hospital at the point of delivery—confused, frightened and unprepared. They were rarely known to a social agency, except when seeking public assistance. Instead of going for care to a maternity facility, they remained in their own homes during pregnancy.

Operating Program

The new community services project has two major objectives:

1. To transfer these girls to an educational program consistent with their condition and to maintain both their and the school's responsibility for continuous school attendance.
2. With this structure, to maintain these girls during a stressful period and make them available to psychiatric, social, educational and medical intervention.

The project is limited to girls in elementary school who have not reached their seventh month of pregnancy, are in good physical health, and who wish to continue their schooling during pregnancy. Over the three-year period, the project expects to serve approximately 100 girls and has an adequate staff.

The educational phase of the program, offering both an accredited academic and home arts curriculum

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* An early draft was delivered at American Orthopsychiatric Association Meeting in New York, March 18, 1965.

† Director, Illinois Department of Mental Health, Community Service Project, 551 East 36th Place, Chicago, Ill. 60653.

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is carried out in a large YWCA classroom without cost. The Board of Education provides the teaching staff and many of the educational supplies, also carfare and a nutritious hot lunch. The school program approximates as nearly as possible the regular school classroom setting and routine. Girls who complete the eighth grade while in the project are graduated from the project school. There are ancillary after-school cultural activities.

Medical services including prenatal and delivery care are given by the Board of Health Infant Welfare Stations and participating local hospitals. For those girls who have had their babies and are keeping them instructions in baby care are given by Board of Health nurses. Follow up home visits made by the nurses are augmented by the Psychiatric Nurse.

The mental health services encompass individual and family counseling, psychologic testing and psychiatric consultation. In addition, weekly group meetings are held. Under the leadership of a social worker, the girls are encouraged to discuss common concerns. These may range from questions of school adjustment to discussions of conflictual feelings related to being pregnant and the problems which often develop after the baby is born. Mothers of participating girls are also involved in regular interviews and bi-weekly group meetings and these aid in building up understanding between mothers and daughters.

Mores, Attitudes and Behavior

The attitudes of the girls' mothers toward men and sexual intercourse are as follows: Men were seen as providers of a whole host of gratifications. The women felt intense insecurity and a great need for material support. Much of the disturbances within these mothers stems from their massive lack of security, self-esteem and material well-being. Their own sexual activity seems a way of securing satisfaction of these needs or making payment when these are fulfilled. Because most of them are in a constant state of depressed self-esteem the women demand little in the relationship over and above sexual gratifications. There is a tendency to separate sexual activities and emotional investment in the individual male.

They generally believe that "you will go crazy" if you don't have sexual relations before adulthood. (This attitude has also been expressed by participating girls.) They also believe that regular sex relations are necessary for the physical well-being of women.

They assume that all women will inevitably have sexual relations whether married or not. That if you have not engaged in sex by a certain age—*i.e.*, "18 or 19"—something is wrong with you—*i.e.*, undersexed, abnormal (physically or mentally ill—"crazy").

Men are rare in the sustaining continuity of family life. Fathers generally are not expected to be active within the family in disciplining or guiding children. A good father is seen primarily as a good economic provider.

In their attitudes toward selves and sexuality in their children, the mothers see themselves as having little control over their own fate or confidence in controlling their daughters' sexual behavior. Because of congested living conditions and lack of privacy children at an early age frequently may be sexually stimulated by observing sexual acts involving older children, as well as adults. Often this leads to the young child imitating the observed sexual behavior.

There is a tendency to avoid or deny that masturbation occurs in their offspring. The girls as a group report no masturbatory experiences during adolescence.

To these mothers, sex is not a "nice" topic to discuss. Giving factual sex information to pre-school children generally is disapproved of. They assume that children will learn from each other when they reach school age.

On a conscious level, mothers set up many verbal prohibitions against sexual acting out prior to adolescence. At the same time, on an unconscious level, mothers' prohibitions, along with their own sexual experiences, serve to stimulate and provoke girls' sexuality. They tell girls of the "awful" things that will happen if they allow boys to touch them, especially at the onset of girls' menses.

There seems acceptance by mothers of likelihood of sexual relations occurring with girls at onset of menstruation regardless of age. It is enforced by strong prohibitions, restrictions and controls on girls' behavior when they start menstruation. Many warnings are given about not exposing themselves under their clothes. A common practice is to check every month to see that the girl is menstruating. Menstruation means you can have a baby. This is the important consequence to prevent, rather than loss of virginity itself, or the part this plays in the total development and maturing of the girl. The comment of one mother was: Sex relations are not as serious at eight years old because then girls couldn't have babies.

They are often less permissive than middle-class about dating, anticipating that this is likely to result in sex relations.

The girls' attitudes toward sexual intercourse, pregnancy and peer group values indicate that being attractive and feminine is often achieved by engaging in intercourse (strong narcissistic qualities operating with girls). There is marked lack of information and much distortion in understanding male and female physiology and how conception takes place. For example, (a) pregnancy will not occur at time of first intercourse; (b) pregnancy will occur only when intercourse occurs during menstruation; (c) after many sexual experiences; or, (d) when boy is older.

There is marked pressure within peer group to have sexual relations coupled with other factors which serve to over-stimulate them to act out sexually and a corresponding lack of adequate substitutes to satisfy these impulses. Ego development in the girls is less well-integrated. Correspondingly, their drives are stronger, particularly sexual ones, as opposed to their regressive and dependency drives which their mothers will not permit them to express.

Boys consider it a status factor to have visible proof of potency. It is often a prestige (ego-enhancing) factor to have fathered several children. Girls seek to please boy by having a baby. (Peer group expects girls to keep their babies and take responsibility for them.)

Strong feeling that baby belongs to both parents and that father has certain ownership rights.

Promiscuity on part of girls more frowned upon—to engage in sex with a number of boys, as opposed to one boy.

Going steady and marriage gives girl status—in terms of proof that she can "keep her man." Girl expected to have sex relations with boy her own age.

It is considered more acceptable to have intercourse in appropriate place, such as a home. Girl who has intercourse in public places such as fire-escape, roof-top, etc.—is not approved of.

Immediate reaction of mothers to girls' pregnancy is one of shock, dismay and disappointment. This is viewed as a crisis situation. Often noted are tremendous guilt, anxiety and angry feelings by mother, tied in with some discomfort about her role in the girl's dilemma. Gradually, one sees mother erecting defenses against these original reactions by taking a position such as, "It's fate, it's their (the girls') nature or behavior which she (the mother) can't control."

The mothers often expect the girls to keep their babies as consequences of their behavior. Along with this is the belief by mothers that the girl's having to take responsibility for her baby will be a deterrent against a second pregnancy. A strong sense of family ties is evident. The mothers believe that only those who are related or close friends—godmother, play-aunt, and others—will take good care of baby.

The statement is often heard: "You don't give babies to strangers." And adoptive placement is equated with "throwing away your own flesh and blood." In addition to cultural influences, that is, a lack of trust in alien situations with which you are not familiar, the mothers have strong psychologic need is to keep the daughters' babies to assuage their own guilt, particularly if they also have had children out of wedlock or to provide the mothers with another opportunity to prove their adequacy as mothers.

Girls' attitudes and feelings toward their own pregnancies reflect a wide range of responses and defensive reactions. With few exceptions, girls deny having been forced to engage in the relationship.

The participating girls' role in family indicate that they are reared to be mothers rather than wives. They often are treated as functional extensions of their own mothers in specific household duties, especially the taking care of younger children. They are expected to assume responsibilities normally carried out by a mother. At the same time, they are denied compensatory privileges, satisfactions and recognition of maturity that would customarily accompany this role. The subsequent dichotomy in roles poses a dilemma for the girl in terms of behavior consistent with neither. Frequently, this catapults her into actions in which she seeks gratification on an adult level, thereby competing directly with her mother. This situation is further complicated when her mother is openly involved in extramarital relationships, especially when these result in pregnancy out of wedlock. Once a girl has had sexual relations, she is regarded as a woman.

General observations indicate that sex mores in this group are inbred and circumscribed. They are the direct result of experiences within the group. As a subculture existing within a larger culture, the group tends to be insulated against ideas and attitudes prevalent within the community about it.

Over-crowding and the anonymity of public housing and slum tenements, as well as a lack of constructive and meaningful ties to each other and to the community, contribute to a breakdown or lack of controls and help to mold the background against which sexual acting out thrives.

From psychologic testing, the following characteristics stand out in describing participating girls:

1. **All girls see their mothers as prohibitive regarding sex, with much checking on their activities.**
2. **There is considerable denial of sexuality. This is associated with a lack of male identification. There is a tendency to substitute boys with whom they are or have been involved, with a father, whom few have had in reality.**
3. **Marked denial of being pregnant.**
4. **Tendency to see sexuality as generally an act of violence, instead of an actual sexual experience.**
5. **Within a framework of the male and female, the female is dominant; the male passive and ineffectual.**
6. **Marked feelings of ambivalence toward mother and their babies.**

a guide for collaboration of PHYSICIAN, SOCIAL WORKER, and LAWYER in helping the UNMARRIED MOTHER and HER CHILD

Physicians, social workers, and lawyers are the professional persons who in their practice most frequently encounter unmarried mothers. Where does the responsibility of each begin and end and how can they most fruitfully work together to best serve the needs of the unmarried mother and her child?

For the past 5 years the organizations that represent these professions, led by the American College of Obstetricians and Gynecologists, have been working with the Children's Bureau and the Child Welfare League of America to formulate an answer to this question. The resulting statement, presented here, was completed in the summer of 1966 and by the end of the year had been officially approved by the following organizations:

- **The American College of Obstetricians and Gynecologists**
- **The American Academy of Pediatrics**
- **The American Medical Association**
- **The American Bar Association, Section of Family Law**
- **The Child Welfare League of America**
- **The Children's Bureau.**

The need for close cooperation between the physician, the social worker, and the lawyer in the care of the unmarried mother should be universally recognized. Each of these three is responsible for advising the unmarried mother of the need for consultation in her case with the other two disciplines involved, because each has a special field of competence. While recognizing that in some jurisdictions individuals as such, may place or otherwise facilitate the adoption of minors, it should be emphasized, nonetheless, that physicians social workers, and lawyers, individually or jointly, when acting as individuals and not in cooperation with a qualified child placement agency, do not have the facilities and resources necessary to provide protection and services needed by all persons affected by the adoption. To further this cooperation, the areas in which the primary responsibilities and those in which the function of the three disciplines overlap must be delineated.

The *physician* is held responsible for the physical and mental health of the patient. It is the physician who must make the diagnosis of pregnancy determine the expected date of delivery, and decide where the delivery should take place. Among other things he must decide how much information the patient should be given on the physiology and pathology of pregnancy, labor, and the puerperium. The decision on whether to advise the patient to nurse the baby (if she decides to keep him) will rest on emotional as well as physical factors.

He must safeguard the confidentiality of the information the patient discloses except as provided by the laws of his State. Recognizing the limitations placed on a minor, he must be certain of the validity of the consent the patient gives for any disclosures, treatment or procedure. If social services are available, the physician should avoid becoming involved with the placement of the infant or acting as an intermediary.

The responsibility of the *social worker* includes helping the unmarried mother with the distinctive social and emotional problems connected with having a child out of wedlock. To this end, the social worker draws upon the experience of social agencies in working with unmarried mothers, upon familiarity with community resources, and upon social and psychological diagnostic skills in determining what help a particular client needs and can use. Among

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other things, this involves referring the patient for early and competent obstetrical examination, emphasizing the need for continued antepartal and postpartal care, reinforcing the medical care by strengthening the faith of the patient in the doctor, and, where possible or necessary, implementing his recommendations.

The social worker counsels the patient on plans for her future and that of the infant, always safeguarding the best interests of the child. The social worker provides psychological help and support complementing that given by the doctor. The social worker recognizes and supports the legal obligations of the doctor as to the results of treatment or advice, including professional disclosures and the peculiar problems of a minor.

The social worker counsels the unmarried mother in the various social aspects involved and recommends that she consult a lawyer for advice on the legal aspects as needed in the individual situation.

The lawyer for the unmarried mother is responsible for counseling her regarding the legal consequences of keeping or of giving up her child and of her legal rights in respect to the putative father. If she releases the child for adoption, he must be sure that all legal requirements are met. He should not represent the prospective adoptive parents. If social services are available, the lawyer should avoid becoming involved with the placement of the infant or acting as an intermediary.

All three disciplines recognize the right of the unmarried mother to make decisions for herself and her child except where such rights are involuntarily terminated by court action. Likewise, all three recognize that each must give advice and guidance to her. Whether giving advice is limited to mere clarification of the alternatives between which the client must choose or extends to a firm recommendation for the course of action the patient should take, the collective counseling, like parental guidance, must be harmonious lest the unmarried mother become confused. Differences of opinion which may arise as to the advice to be given should be resolved by prior conferences.

Broad principles have been established through experience in all three professions, but philosophies vary in different communities and change from time to time not only within the same community but also within the Nation.

Furthermore, each case must be individualized, particularly with reference to questions such as:

1. Shall the parent of the patient or the putative father be told of the pregnancy?

2. Shall the patient marry the putative father?

3. Shall legal action be taken against him?

4. Where shall delivery take place?

5. Shall the putative father visit the patient before or after delivery?

6. Shall he ever see the baby?

7. Shall the baby be photographed and the picture made available?

8. Shall the patient be allowed, urged, or forbidden to see her child, put him to breast, or care for him?

9. Shall the patient have psychiatric help; if so, to whom shall she be referred?

10. At which point in the pregnancy or puerperium shall the decision be made as to the child's future?

11. If the decision is for adoption, how and where shall final surrender of the child be taken?

12. Shall the mother be told of any deformity or handicap of the child and, if so, when and by whom?

13. If the matter of legal residence is involved and the possibility of nonadoptability, who shall be responsible for properly informing and counseling the unmarried mother?

When the doctor, social worker, and lawyer are mature, experienced individuals, each primarily concerned with working out the complex problems in any given case for the best interests of the child and the unmarried mother, each recognizing and respecting the responsibilities and competence of the other derived from professional training in dealing with the physical, mental, emotional, social, and legal factors involved, there rarely will be a difference of opinion. If such a difference does arise, one which cannot be resolved by a conference, genuine collaboration requires the wholehearted assistance of all three in supporting the judgment of the member of the discipline with primary responsibility, namely: for the physical and mental health of the mother and child, the doctor; for the social and emotional welfare of the mother and child, the social worker; and for the legal protection of the mother and the child, the lawyer.

Functional Attendance Periods

The school year for the Atlanta Public Schools consists of 180 days separated into nine attendance periods of 20 school days each. In identifying target girls, it was necessary to consider all 30 days within a particular month. To compensate for the problem of weekends and holidays, a system of functional attendance periods was devised. Those days which fell between actual attendance periods were divided among the adjacent actual periods to form functional attendance periods. This allowed for the detection of deliveries by students on any given day of the year. In the analysis of attendance, this procedure could not produce information for nonschool days. It did, however, provide a means for looking at attendance while considering all delivery possibilities. Each functional attendance period contained approximately 30 days in which a delivery could have occurred. The block of 20 recorded attendance days remained in each functional period. This procedure was selected as a consistent method for the standardization of attendance information.

Actual Attendance Periods

Summer 1971

08/30/71 -- 09/27/71
09/28/71 -- 10/26/71
10/27/71 -- 11/23/71
11/29/71 -- 01/02/72
01/06/72 -- 02/03/72
02/04/72 -- 03/03/72
03/06/72 -- 03/31/72
04/10/72 -- 05/05/72
05/08/72 -- 05/31/72

Summer 1972

08/28/72 -- 09/25/72
09/26/72 -- 10/24/72
10/25/72 -- 11/21/72
11/27/72 -- 01/04/73
01/05/73 -- 02/02/73
02/05/73 -- 03/05/73
03/06/73 -- 04/04/73
04/05/73 -- 05/03/73
05/04/73 -- 05/29/73

Summer 1973

08/27/73 -- 09/24/73
09/25/73 -- 10/23/73
10/24/73 -- 11/25/73
11/26/73 -- 12/21/73
01/03/74 -- 01/31/74
02/01/74 -- 02/28/74

Functional Attendance Periods

06/01/71 -- 07/01/71
07/01/71 -- 07/31/71
07/31/71 -- 08/29/71
08/29/71 -- 09/27/71
09/27/71 -- 10/26/71
10/26/71 -- 11/28/71
11/28/71 -- 01/05/72
01/05/72 -- 02/03/72
02/03/72 -- 03/03/72
03/03/72 -- 04/09/72
04/09/72 -- 05/07/72
05/07/72 -- 05/31/72
05/31/72 -- 07/01/72
07/01/72 -- 07/31/72
07/31/72 -- 08/28/72
08/28/72 -- 09/26/72
09/26/72 -- 10/25/72
10/25/72 -- 11/22/72
11/22/72 -- 01/05/73
01/05/73 -- 02/03/73
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05/04/73 -- 06/01/73
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07/01/73 -- 07/31/73
07/31/73 -- 08/26/73
08/26/73 -- 09/25/73
09/25/73 -- 10/24/73
10/24/73 -- 11/26/73
11/27/73 -- 12/21/73
12/21/74 -- 01/31/74
01/31/74 -- 02/28/74

APPENDIX C

Data Reduction Method

The seasonal variation in date of delivery can have an affect upon pattern of attendance. For example, a girl who delivers in midterm, February, may have poor attendance throughout that month and on through the spring. While in contrast, the girl who delivers in midsummer has the rest of the recess to readjust and may not suffer in her school attendance at all. The following tabulation illustrates the relation of delivery quarter to school attendance period within a one year time frame.

RELATION OF DELIVERY QUARTER TO SCHOOL ATTENDANCE PERIOD

Actual Duration	Three Months	Three Months	Three Months	Three Months
Point In Pregnancy	First Trimester	Second Trimester	Third Trimester	Post-partum
Sequence				
A	Winter	Spring	Summer	Fall
B	Spring	Summer	Fall	Winter
C	Summer	Fall	Winter	Spring
D	Fall	Winter	Spring	Summer

The data reduction method adjusted all available subject attendance around the delivery date. This enabled a composite view of attendance for the time frame. When analyzing the data of the 185 identified girls, a matrix of days attended both pre and post partum was constructed. Weighted averages of each attendance period were taken to yield the "Composite" pregnant school girl.

In the simplified table of the data scheme, the seasonal variation in attendance patterns is demonstrated. Girl A, who delivered her child just before school began (e.g., 7/25/72), offered nine attendance periods of postpartal attendance data, By contrast, Girl B, who delivered after school closed (e.g., 6/2/72) offered nine attendance periods of antepartal attendance data. Another example, Girl C, delivered in the middle of the fifth attendance period and offered half antepartal and half postpartal attendance data. All periods preceded by a minus are predelivery periods. The period in which the baby was born is designated as "D." Periods preceded by a positive sign are periods after the delivery.

ILLUSTRATION OF COMPOSITE DATA SCHEME

Girl	Antepartal Delivery Period									Delivery Period	Postpartal Attendance Period								
	-9	-8	-7	-6	-5	-4	-3	-2	-1	D	+1	+2	+3	+4	+5	+6	+7	+8	+9
A											x	x	x	x	x	x	x	x	x
B	x	x	x	x	x	x	x	x	x										
C						x	x	x	x	x	x	x	x	x	x				

In the actual studies, the numbers of cases were far greater. However, the treatment of data was similar. All periods preceded by a minus are predelivery and all periods preceded by a plus represent postpartal information. The "D" designates delivery. The figures of attendance adjusted around delivery date were all constructed utilizing the data reduction method. They represent a composite view of the adolescent mother's attendance for ten-month periods prior to and after the delivery of her child.

OPERATIONAL RESEARCH IN MATERNITY CARE OF ADOLESCENTS

Maternity Care Research Unit

Report No. 4: Comparisons of Special Groups of Mothers

A. School Continuers and School Drop-outs
B. Younger Mothers (15 or less) and Older Mothers (16-19)
C. Contraceptive Users and Non-users
D. Mothers of Babies 2500 grams or less and Mothers of Babies over 2500 grams
E. Mothers with Repeat Pregnancies and Mothers without Repeat Pregnancies

UNIVERSITY OF PITTSBURGH

Maternal and Child Health Section
Graduate School of Public Health

Department of Obstetrics and Gynecology
School of Medicine

June, 1972

Supported by the Maternal and Child Health Service of Health Services and Mental Health Administration (formerly the Children's Bureau) as Maternal and Child Health and Crippled Children's Research Grant No. MC-R-420054-04-0

Report prepared by:

David L. Ellison

Joyce Meli Fuchs

Dolores Buffo Glaser

Josephine Hatley

Hsumei Ko

Edward R. Schlesinger

This is the fourth report of the Maternity Care Research Unit on the project entitled "Operational Research in Maternity Care of Adolescents" (Grant No. MC-R-420054-04-0). It compares special groups of mothers in order to discover factors related to dropping out of school, the age of the mother, contraceptive use, prematurity by weight, and repeat pregnancies.

PROJECT INVESTIGATORS AND STAFF

Edward R. Schlesinger, M.D.	Project Director
Donald L. Hutchinson, M.D.	Project Director
Willa Dean Lowery, M.D.	Principal Investigator [illegible] 1967 to August 1969
David L. Ellison, Ph.D.	Principal Investigator January 1970
Byron W. Wight, M.A.	Associate Investigator
Sati Mazumdar, Ph.D.	Statistician October 1967 to August 1971
Haumei Ko, M.S. (Hyg.)	Statistician September 1971
Rose Tarasi, M.S. (Hyg.)	Senior Research Assistant (Administration) January 1967 to December 1969
Joyce Meli Fuchs, M.A., M.S., (Hyg.)	Senior Research Assistant (Administration) September 1970
Margaret Dobbins Milliones, M.A.	Senior Research Assistant (Sociology)
Dolores Buffo Glaser, R.N.	Senior Research Assistant (Nursing)
Eileen Cleary, M.S. (Ed.)	Group Leader
Becky Coge[illegible], B.A., B.D.	Group Leader
Janet Fowkes, M.S.W.	Group Leader
Marsha Kincy, M.S.W.	Group Leader
Marie Oliver, B.A.	Group Leader
Marsha Johnson	Follow-up Interviewer January 1971 to August 1971
Josephine Hatley	Follow-up Interviewer August 1971
Virginia Stelle	Senior Clerk
Colleen Darr	Project Secretary
Marion Edwards	Secretary

Acknowledgements

We are indebted to the administrations of the Magee-Womens Hospital and the Educational-Medical School of Pittsburgh for placing at our disposal, office space, examining room facilities, medical records, classroom facilities and educational records.

Our sincere appreciation is extended to Dr. Patricia H. Ellison, Dr. Douglas Thompson, Mrs. Christine Fossett and Mrs. Joan Kruper for their assistance in gathering data.

To all the women who participated in our Teenage Clinic goes a special thank you for making this research project possible.

The purpose of Report No. 4 is to compare particular categories of mothers with special problems. This report builds upon Report No. 1, December 1971 which presented a pilot analysis based upon only 59 women at Magee-Womens Hospital. In that analysis, trends in the data were reported because statistically significant findings did not occur. It was assumed that the small number of cases was inadequate for a definitive study. However, at this point over 400 cases are available permitting a more conclusive analysis.

The pregnant teenagers included in this analysis attended the Educational-Medical School in the years 1968-71 and responded to a follow-up interview about 12 months after delivery. That is, only those women with completed educational, medical, and follow-up data were considered. Data presented in the Appendix indicate that the 411 women included in this report are representative of the 776 students attending the Ed-Med School.

Table 1. Summary of Date Collection Results

School Year	Number of Students Attending Ed-Med School	Number With Medical Data*	Number Not Located at Follow-up	Number With Follow-up Completed
1968-69	242	196	49	147
1969-70	244	196	35	161
1970-71	290	211**	33	103
Totals	776	603	117	411

*It was impossible to collect medical data on all students because two hospitals refused to permit use of their records.

**Follow-up was terminated January 31, 1972 preventing follow-up of 75 mothers whose children were not yet one year old.

A. School Continuers and Drop-outs

The educational outcome data (Table 2) indicate that 72 women had not returned to school after delivery and 72 had not returned but dropped out. In this analysis these 144 women are considered drop-outs. The educational continuers are those who returned and graduated or those who returned and were still attending at follow-up. In all 37 per cent are drop-outs

Table 2. School Attendance Following Delivery

	n	%
Did not return	72	18.5
Returned and dropped out	72	18.5
Returned and graduated	142	35.6
Returned and still attending	104	26.7
Totals	390	100.1
No info	21	

and 63 per cent are continuers. The purpose of this section is to investigate the differences between these two groups, continuers and drop-outs, to see what factors are related to school continuation.

First of all, continuers were significantly older than drop-outs (Table 3). That is, greater proportions of continuers were 17, 18, and 19 while greater proportions of drop-outs were 14, 15, and 16. This was paralleled by the data on educational level (Table 4). While 35.2 per cent of the continuers were in the 12th grade, only 6.7 per cent of the drop-outs were in the 12th grade. In other words, older mothers having fewer years of school to complete are more likely to continue their education.

Table 3. Age of Entry into Ed-Med Program

	Continuers		Drop-outs	
Age	n	%	n	%
12	1	0.4	0	0.0
13	4	1.6	2	1.3
14	13	5.1	13	8.7
15	44	17.4	43	28.7
16	74	[illegible]9.2	54	36.0
17	78	30.8	31	20.7
18	32	12.6	5	3.3
19	7	2.8	2	1.3
Totals	253	100.0	150	100.0
Mean	16.3		15.8	

Table 4. Educational Grade Level Entering Ed-Med School

Grade	Continuers n	Continuers %	Drop-outs n	Drop-outs %
7	2	0.8	4	2.7
8	11	4.3	8	5.3
9	31	12.3	45	30.0
10	46	18.2	51	34.0
11	74	29.2	32.	21.3
12	89	35.2	10	6.7
Totals	253	100.0	150	100.0
Mean	10.8		9.8	

Another set of significant variables is related to educational performance. Continuers showed significantly better academic performance prior to entering Ed-Med, and during Ed-Med. As Table 5 illustrates those who continued their education after delivery were able as a group to maintain their grade averages during their pregnancy while the group of women who dropped out showed a marked decrease in grade average during their pregnancy and stay at Ed-Med School. These educational performance data are supported by significant attendance data. Women who continue their education have significantly better attendance records for the year prior to their admission (i.e. prior to this pregnancy) and during their stay at the Ed-Med School. The continuers showed significantly better attendance and grade averages than the drop-outs. These significant relationships persist when age is controlled and the comparisons are made using two age-matched groups.

Table 5. Grade Averages of the Mothers

	Before Ed-Med				During Ed-Med			
	Continuers		Drop-outs		Continuers		Drop-outs	
Average	n	%	n	%	n	%	n	%
0.0-0.4	6	2.5	29	20.9	9	3.7	64	48.1
0.5-0.9	25	10.4	31	22.3	18	7.5	13	9.8
1.0-1.4	43	17.9	23	16.5	51	21.2	25	18.8
1.5-1.9	56	23.3	21	15.1	32	13.3	8	6.0
2.0-2.4	61	25.4	24	17.3	61	25.3	11	8.3
2.5-2.9	25	10.4	6	4.3	28	11.6	6	4.5
3.0-3.4	13	5.4	1	0.7	29	12.0	3	2.3
3.5-3.9	10	4.2	4	2.9	7	2.9	3	2.3
4.0	1	0.4	0	0.0	6	2.5	0	0.0
Totals	240	100.0	139	100.0	241	100.0	133	100.0
Mean	1.87		1.28		2.00		0.95	

When measures of intellectual ability are considered without controlling for age continuers and drop-outs do not differ significantly. However when age is controlled the drop-outs do have significantly lower IQ scores. The mean IQ for drop-outs is 92.05 while for continuers it is 95.79 (Table 6).

Table 6. IQ Scores of Mothers (controlled by age)

IQ Score	Continuers n	Continuers %	Drop-outs n	Drop-outs %
70 or less	0	0.0	7	5.0
71-80	9	6.5	16	11.5
81-90	35	25.2	33	23.7
91-100	44	31.7	48	34.5
101-110	38	27.3	25	18.0
111 or more	13	9.3	10	7.2
Totals	139	100.0	139	100.0
Mean	95.79		92.05	
Missing Info	11		11	

Up to this point, then, continuing one's education after delivery is significantly related to:

(a) the number of years of schooling remaining to be completed.

(b) academic performance prior to becoming pregnant and entering the Ed-Med School.

(c) academic performance during pregnancy and during her stay at the Ed-Med School.

(d) attendance before and during Ed-Med School.

(e) IQ scores of the mothers.

Since the drop-outs had higher rates of absenteeism it is possible that health might be an important factor. In order to investigate this the obstetrician and nurse researcher investigated all of the clinic records and developed Table 7.

Table 7. Did this mother have any remarkable physical or mental problems* prior to this pregnancy? (controlled for age)

	Continuers		Drop-outs	
	n	%	n	%
Yes	29	19.5	26	17.6
No	120	80.5	122	82.4
Totals	149	100.0	148	100.0
Missing Info	1		2	

*These were defined as complications which the physician in charge felt were important enough to be included on the hospital/clinic chart.

It is obvious that the health of continuers and drop-outs prior to pregnancy was similar and therefore it is doubtful that higher rates of school absenteeism among drop-outs were related to poor health.

On the other hand the picture during pregnancy is not the same. From the clinic records the obstetrical nurse researcher developed Table 8. Medical complications during pregnancy were significantly more prevalent among the drop-outs than the continuers. To some extent this is validated

Table 8. Did this mother have any remarkable medical complications* with this pregnancy?

	Continuers		Drop-outs	
	n	%	n	%
Yes	39	26.9	61	41.2
No	106	73.1	87	58.8
Totals	145	100.0	148	100.0
Missing Info	5		2	

*These were defined as complications which the physician in charge felt were important enough to be included on the hospital/clinic chart.

by Table 9, which shows the drop-outs with a significantly greater proportion of emergency room visits prior to delivery. In other words a greater proportion of the drop-outs appeared to have some difficulty with their pregnancy and this was manifested in medical complications and a higher proportion of emergency room visits. The medical complications for the two groups of women are distributed in Table 10. While the differences are small drop-outs have more spontaneous premature rupture of the membranes, urinary tract infection, and bleeding in the second and third trimesters. Also, drop-outs are more likely to have multiple complications. This preponderence of medical complications among the drop-outs may indicate generally poor health among these women or may reflect more pervasive difficulties in the pregnant woman and her family situation. In either case, the result is dropping out of school.

Table 9. Number Making at Least One Emergency Room Visit Prior to Delivery

	Continuers		Drop-outs	
	n	%	n	%
Yes	28	18.7	43	29.0
No	122	81.3	105	71.0
Totals	150	100.0	148	100.0
Missing Info			2	

Table 10. Medical Complications* During Pregnancy

Complications	Continuers n	Continuers %	Drop-outs n	Drop-outs %
Anemia	13	9.0	11	7.4
Spontaneous premature rupture of membranes	5	3.4	14	9.5
Urinary tract infection	5	3.4	10	6.8
Preeclampsia	7	4.8	7	4.7
Bleeding, 2nd and 3rd trimesters	2	1.4	6	4.1
Excessively overweight	2	1.4	2	1.4
Gonorrhea	2	1.4	2	1.4
Condylomata Acuminata	1	0.7	2	1.4
RH sensitization	1	0.7	2	1.4
Hyperemesis Gravidarum	0	0.0	2	1.4
Bartholin abscess	0	0.0	1	0.7
Tonsilitis	0	0.0	1	0.7
Hypertension	1	0.7	0	0.0
Upper Respiratory Infection	0	0.0	1	0.7
None	106	73.1	87	58.8
Totals	145	100.0	148	100.0
Missing Info	5		2	

Number of Complications	Continuers n	Drop-outs n
One	34	48
Two	2	10
Three	3	3

*Only the most severe complication for each mother is tabulated. Some women had multiple complications.

While medical complications during pregnancy were more likely to be listed by the drop-outs and might account for higher rates of absenteeism from Ed-Med School, they did not appear to be related to other health aspects of the pregnancy or delivery. The continuers and drop-outs did not differ in their amounts of toxemia, anemia, venereal disease, weight gained during pregnancy, psychiatric symptomatology, hospitilizations prior to delivery, gestational week at delivery, length of labor, method of delivery, complications with delivery, post-partum complications, weight of the baby, Apgar score of the baby, and the pediatricians estimate of prognosis. This essentially negative finding, i.e. that there are no physical health differences except during the pregnancy suggests the possibility of social-psychological variables as important contributors. In other words, it is possible that the drop-outs did not have the necessary coping skills, resources, or supports to endure the pregnancy.

Several variables which may indicate a social support system were significantly related to whether a woman continued her education or dropped out. During the follow-up interview the mothers were asked, "When you have needed or wanted to go out, have you had problems finding someone to watch your baby?"

Table 11. Have you had problems finding someone to watch your baby?

	Continuers		Drop-outs	
	n	%	n	%
Yes	25	10.2	32	22.2
Sometimes	30	12.2	25	17.4
No	191	77.6	87	60.4
Totals	246	100.0	144	100.0

Table 11 shows that a significantly greater proportion of those who dropped out had difficulty finding someone to watch their baby. When the mothers were asked "Who helps the most with the baby?", a significantly greater proportion of the continuers (72.0%) than the drop-outs (57.9%) mentioned their mothers. When the women were asked "Who spends the most time with the baby?", a significantly greater proportion of the drop-outs (82.8%) than the continuers (66.8%) said they themselves spent the most time with their baby. These data suggest that a greater proportion of those who continue their education have someone available to help care for their infant.

In addition to social support, or perhaps because of it, an additional factor appears to be significant, motivation. Only 4.9 per cent of the drop-outs had some work experience prior to entering Ed-Med, while 15.3 per cent of the continuers had work experience. Also a greater proportion of continuers than drop-outs reported Excellent or Good Health at follow-up.

In conclusion, it appears that surviving the crisis of teenage pregnancy and continuing one's education is dependent upon a complex of several factors. These data indicate that the more intelligent are more likely to continue their education. The mothers who continued their education had better attendance records both prior to and during their pregnancy and as would be expected better academic records prior to and during their pregnancy. The data suggests that the families of these teenage mothers provide the social support which helps with baby sitting as well as the psychological support which helps them through the pregnancy and motivates them to continue. Finally age makes a difference too. Older women, having less education to complete are more likely to continue.

B. Younger Mothers and "Older" Mothers

The medical literature suggests that among teenagers, younger mothers are at greater risk. Therefore, the mothers were divided into two age groups: those age 15 or younger and those age 16 and older.

The pilot study comparing these two age groups of women (Report No. 1, pp. 44-46) suggested that differences appeared to cluster around medical problems of the mother. Younger mothers "tended" to be characterized by later enrollment at the medical clinic and thus fewer visits, more health problems prior to pregnancy, anemia, complications with delivery, more post-partum complications, and physical health problems of the mother persisting after delivery. All of the above relationships were observed as percentage differences not as statistically significant differences. The pilot study was based upon only 59 mothers. This analysis, based on 411 mothers, will attempt to test the trends observed in the pilot study.

The age distribution of the teenage mothers is shown in Table 12.

Table 12. Age Distribution

Age	n	%
12	1	0.2
13	6	1.5
14	28	6.8
15	90	21.9
16	131	31.8
17	109	26.5
18	37	9.0
19	9	2.2
Totals	411	99.9

Women 15 years of age or younger account for 30.4 per cent of the total while those 16 or older account for 69.6 per cent. As in the pilot study, the younger and "older" mothers had similar school expereiences prior to and during Ed-Med, similar rates of returning to school, and similar proportions of repeat pregnancies. Younger mothers attended the Ed-Med school for a longer period of time than "older" mothers. The mean length of stay* for younger mothers was 5 months, and for "older" mothers it was

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*Length of stay was measured from date of entry into Ed-Med until date of leaving. In some cases women delivering at the end of the school year continued on at Ed-Med and did not transfer to another school.

4 1/2 months This occurred despite the fact that the two groups were admitted to Ed-Med at nearly identical stages of pregnancy.

Most trends discovered in the pilot study did not hold up. Young women and "old" women enrolled at the medical clinic at similar stages in their pregnancies and had similar amounts of pre-natal care. The medical records of both groups revealed similar proportions of physical and mental problems prior to pregnancy. The trend toward higher anemia (as measured by hematocrit reading) among younger mothers persisted but was not statistically significant. The trend toward more medical complications among younger mothers during pregnancy continued but did not approach statistical significance The proportions of medical complications during delivery were the same for younger as for "older" mothers. At follow-up the babies of the younger and "older" mothers did not differ in weight percentiles. Also at follow-up the younger and "older" mothers report their general health levels to be similar.

A few trends noted in the pilot study persisted at a statistically significant level. Younger women (26.2%) had significantly more post-partum complications than "older" women (13.8%). One significant medical finding which did not occur in the pilot study related to toxemia. Significantly more mild preeclampsia occurred among the younger (12.8%) than among the "older" (2.8%) teenage mothers. Younger mothers were significantly less likely to receive family planning advice at the hospital than older mothers as Table 13 illustrates.*

Table 13. Did mother receive the services of the family planning clinic at the hospital following delivery?

	Ages 12 - 15		Ages 16 - 19	
	n	%	n	%
Yes	73	62.4	194	74.0
No	44	37.6	68	26.0
Totals	117	100.0	262	100.0

However this did not lead to differences in contraceptive use. At follow-up the differences in contraceptive use were not significant.

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*Report No 1 contains some confusion on this issue, (page 45). The wording is correct, the percentages provided in parentheses are incorrect.

The outcomes of the pregnancies for the two groups of women are presented in Table 14. Younger mothers tend to have a greater proportion of stillbirths, while babies premature by weight are more characteristic of the "older" mothers.

Table 14 Pregnancy Outcomes

Outcome	Ages 12 - 15 n	%	Ages 16 - 19 n	%
Abortions	1	0.8	4	1.4
Still birth	5	4.0	2	0.7
Neonatal death	0	0.0	1	0.3
Premature by weight	12	9.6	44	15.4
Full-term	107	85.6	235	82.2
Totals	125	100.0	286	100.0

In summary, many of the trends suggested by the pilot study did not persist as significant findings when larger numbers of younger and older teenage mothers were compared. Those statistically significant findings were the following:

- Younger mothers attended the Ed-Med School longer than older mothers.
- Younger women had more toxemia (mild preeclampsia) than older women.
- Younger women had more post-partum complications than older women.
- Younger mothers were less likely to receive the services of the family planning clinic in the hospital.

C. Contraceptive Users and Non-users

The general practice in most of the hospitals used by these teenage mothers is to refer them to the family planning unit for advice. If the mother accepts, an aide from the Family Planning Unit visits her in the hospital. During the post-partum visit contraception is discussed and again referrals are made to the Family Planning Clinic for instruction and follow-up regarding the contraceptive of choice. While hospitals may vary somewhat in following these procedures, this should not affect the results since users and non-users of contraceptives were equally distributed among five hospitals.

From the hospital records, Table 15 was developed. According to this table, 70.4 per cent of the teenage mothers received family planning advice

Table 15. Did this mother receive family planning advice in the hospital?

	n	%
Yes	267	70.4
No	112	29.6
Totals	379	100.0
No info	32	

in the hospital. When these women were contacted at follow-up, they were asked for the data in Table 16. The proportion selecting contraception increased slightly. Next, the mothers were asked, "What (method of family planning) are you using now?" When the 22 women who were pregnant at the time of follow-up are eliminated, the proportion of users decreases from Table 16 by about 10 percentage points. The results are that on the average of 18 months after delivery 2/3 of these young mothers are still using some form of contraception.

Table 16. Did you choose a method of family planning after (name of baby) was born?

	n	%
Yes	306	76.3
No	95	23.7
Totals	401	100.0
No info	10	

Table 17. What are you using now?

	n	%
Using contraceptives	249	66.4
Not using contraceptives	126	33.6
Totals	375	100.0
Pregnant now	22	
No info	14	

The pilot study found very few differences between users and non-users. This was the trend in this comparison as well. Significant differences were those that should be expected. Non-users differed from users in that they were less likely to return for their post-partum check up and they did not accept family planning referral in the hospital. The distribution for non-users is bi-modal when cross-tabulated against the time interval since delivery (Table 18). Mothers with a short time interval since delivery and mothers with a long time interval since delivery are more likely to be non-users of contraception.

Table 18. Time Interval Since Delivery and Use of Contraceptives

Time Interval Since Delivery	Using Contraceptives n	Using Contraceptives %	Not Using Contraceptives n	Not Using Contraceptives %
Less than 12 months	28	11.5	25	20.5
12-17 months	93	38.1	34	27.9
18-23 months	68	27.9	20	16.4
24 months or more	55	22.5	43	35.2
Totals	244	100.0	122	100.0

Only one additional significant finding appeared. Mothers having babies with congenital abnormalities are more likely to be contraceptive users. Seventeen women had babies with a congenital abnormality. Fifteen (88.2%) were using contraception at follow-up.

Among the non-significant trends, there is the hint that medical problems may contribute to some teenage mothers not using contraceptives. Non-users tended to report more physical or mental problems prior to pregnancy and tended to have greater proportions of urinary tract infections and venereal disease.

Finally it is necessary to note that non-users and users did not differ on a variety of variables such as, marital status, repeat pregnancies, desire for additional children, or length of follow-up interval.

In general, that few differences between users and non-users of contraceptives were found is probably related to the variables we studied. Our data do not contain the kinds of motivational variables that others have found related to contraceptive use.

For what it is worth the types of contraceptives selected by these mothers after delivery is compared to what they were using at follow-up (Table 19). There is an obvious increase in those not using contraceptives.

Table 19. Methods of Contraceptive Use at Delivery and at Follow-up.*

Methods	Contraceptive Use at Delivery n	%	Contraceptive Use at Follow-up n	%
Intrauterine Device	103	27.5	88	23.5
Pills	176	47.1	142	37.9
Diaphragm	5	1.3	6	1.6
Foam	2	0.5	10	2.7
Rhythm	0	0.0	0	0.0
Condom	1	0.2	2	0.5
Method Unknown	87	23.3	126	33.6
Totals	374	100.0	375	100.0
Missing Info	15		14	

*The twenty-two women currently pregnant at follow-up are not included in this analysis.

In order to investigate changes in contraceptive use the data for use at delivery are cross-tabulated against the data for use at follow-up (Table 20). From this analysis it can be seen that 67.6 per cent of those using an intrauterine device after delivery were still using it at follow-up and 62.9 per cent of those using pills were using pills at follow-up. It is important to note that only 17.6 per cent of those who started using an intrauterine device after delivery were not using any method of contraception at follow-up while 28.0 per cent who started using pills were using nothing at follow-up.

Table 20. Changes in Method of Contraception from Delivery to Follow-up

Method of Contraception at Follow-up	Method of Contraception at Delivery: Intrauterine Device n	%	Pills n	%	Other* n	%	Nothing n	%
Intrauterine Device	73	67.6	11	5.9	1	10.0	3	3.3
Pills	14	13.0	117	62.9	0	0.0	11	12.0
Other	2	1.8	6	3.2	6	60.0	5	5.4
Nothing	19	17.6	52	28.0	3	30.0	73	79.3
Totals	108	100.0	186	100.0	10	100.0	92	100.0
Missing Info	1		1		0		3	

*This category includes diaphragm, foam, rhythm, condom, and method unknown from Table 19.

D. Low Birth Weight

The pilot study (Report No. 1) was based upon 12 births (10 live babies weighing 2500 grams or less and two still births). That study suggested that medical factors were associated with the low birth weight babies of these teenage mothers.

From the 398 births included in this study 56 babies (14.1%) weighed 2500 grams or less while 342 babies (85.9%) weighed more than 2500 grams.* Compared to national statistics the proportion of low birth weight babies among these mothers is lower.** In 1970, 20.6 per cent of all births to non-white mothers under 15 years of age and 15.8 per cent of all births to non-white mothers 15-19 years of age were low birth weight infants (2500 grams or less). The data for these urban mothers ranging from 12-19 years of age, 95 per cent of whom are Black, show that 14.1 per cent of the babies were of low birth weight.

The factors associated with low birth weight were primarily medical. To begin with, there was a tendency for mothers of low birth weight infants (29.1%) to report more physical and mental problems prior to pregnancy than mothers of babies more than 2500 grams (18.3%). Mothers of low birth weight babies (48.2%) reported significantly more medical complications during pregnancy than mothers of babies more than 2500 grams (31.6%). These medical complications included such things as premature rupture of the membranes (11), preeclampsia (5), anemia (2), second and third trimester bleeding (1), marginal placenta previa (1), Bartholin abscess (1), mass on right breast (1), thrombophlebitis (1), and an upper respiratory infection (1).

Premature rupture of the membranes helps explain another statistically significant finding namely that mothers of low birth weight babies were more likely to have had labor induced, because of their risk of infection.

As would be expected low birth weight babies had significantly more adverse conditions*** at birth. These included conditions such as asphyxia neonatorum (6), respiratory distress syndrome (4), anemia (5), fetal malnutrition (7), hyperbilirubinemia (2), and hepatitis (1). Three babies had three complications, six babies had two, and five babies had one complication. As a result the pediatrician's estimate of the prognosis is significantly poorer for the premature babies.

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*Abortions, still births, and neonatal deaths were excluded from this analysis (n=13).

**U.S. Department of Health, Education, and Welfare. The Health of Children - 1970. September, 1970. pp. 14 - 15.

***"Adverse conditions" were defined as harmful or detrimental conditions not congenital or caused by trauma at birth.

Finally, mothers of low birth weight babies who had repeat pregnancies were not more likely than mothers of babies more than 2500 grams to have a low birth weight second baby.

In conclusion, factors associated with low birth weight births in these teenage mothers were related to the health of the mother both before and during pregnancy.

E. Repeat Pregnancies and No Repeat Pregnancies

It is necessary to begin with a note of caution because the study of repeat pregnancies requires follow-up of the young mothers some time after delivery. It is very difficult to interview all of the women at specific intervals (e.g. 12, 18, or 24 months) after delivery. Table 21 illustrates very clearly the significance of the follow-up interval. Of the mothers interviewed 12-17 months after delivery, 12.1 per cent had conceived, while of those interviewed 30-35 months after delivery 55.6 per cent had conceived. These data illustrate very well the necessity of controlling for the follow-up interval. This will be accomplished by confining the analysis to the time intervals in Table 21. Also the data in Table 21 illustrate the high probability of future pregnancy among these women of child bearing age. Of the 389 women followed, 96 or 24.7% had had another pregnancy by the time they were interviewed. The average follow-up interval was 19.33 months.

Table 21. Additional Pregnancies and Follow-up Interval

	Cumulative Pregnancy Experience					
Follow-up Interval	No Repeat Pregnancies n	%	Repeat Pregnancies n	%	Person Years of Exposure	Ratio Pregnancies per Person Year
Less than 12 months	49	86.0	8	14.0	45.1	0.177
12-17 months	116	87.9	16	12.1	159.5	0.100
18-23 months	73	77.7	21	22.3	160.5	0.131
24-29 months	34	60.7	22	39.3	123.7	0.178
30-35 months	20	44.4	25	55.6	121.9	0.205
36-41 months	1	20.0	4	80.0	16.0	0.250
Total	293		96			
Per cent		75.3		24.7		
Mean months exposure	17.86 months		23.83 months			
Missing Info	22					

Of the 96 mothers who had had another pregnancy, 22 were pregnant at the time of follow-up. Of the remaining 74 mothers, 5 had aborted, 2 had stillbirths, 1 neonatal death occurred, 15 babies weighed 2500 grams or less and 54 weighed more than 2500 grams. (Three mothers bore twins).

In Report No. 2 it was shown that marital status was significantly related to repeat pregnancies and that relationship is validated by Table 22 for these data. Because married women are more likely to have repeat pregnancies than single women it will be necessary to control for marital status by matching the repeaters and non-repeaters on this variable.

Table 22. Marital Status (at follow-up) and Repeat Pregnancies

Repeat Pregnancy?	Single n	Single %	Married n	Married %	Separated n	Separated %	Divorced n	Divorced %
Yes	50	17.1	46	47.4	3	42.9	0	0.0
No	243	82.9	51	52.6	4	57.1	2	100.0
Totals	293	100.0	97	100.0	7	100.0	2	100.0

This significance of marital status is even more striking in Table 23. In each 6 month time interval after delivery married women are more likely to conceive than single women. By the end of 24 months within the limits of these data, 47.4 per cent of the married women had been pregnant again while only 15.8 per cent of the single women had repeated. Caution is necessary here so that the above percentages will not be misunderstood. It is essential to remember that these mothers were not followed as a cohort for 24 months. Rather, they were called at varying intervals so that someone called 12 months

Table 23. Estimated Time Interval Between Delivery and Conception by Marital Status

	Single (n=290)			Married (n=97)		
Interval	Number Pregnant	Per cent of Singles	Cumulative Per cent	Number Pregnant	Per cent of Marrieds	Cumulative Per cent
0-6 months	14	4.8	4.8	23	23.7	23.7
7-12 months	17	5.9	10.7	8	8.2	31.9
13-18 months	12	4.1	14.8	10	10.3	42.2
19-24 months	3	1.0	15.8	5	5.2	47.4
25-30 months	3	1.0	16.8	0	0.0	47.4
31-36 months	[illegible]	0.3	17.1	0	0.0	47.4
Totals	50	17.1		46	47.4	

after delivery was never followed-up again, even though she could have become pregnant the very next month. As a result the percentages of those pregnant are obviously low. However, the data in Table 21 do illustrate the greater proportions of repeat pregnancies among the married women, especially soon after delivery.

In addition to marital status, contraceptive use is an important determinant of repeat pregnancies. When these are combined as in Table 24, several observations can be made. Users of contraceptives are significantly less likely to have repeat pregnancies than non-users. Also the earlier relationship for marital status holds up with married women having significantly more repeat pregnancies be they users or non-users of contraceptives.

Table 24. Marital Status,* Contraceptive Use, and Repeat Pregnancies

	Single				Married			
	User		Non-users		User		Non-user	
Pregnancy	n	%	n	%	n	%	n	%
Yes	20	11.2	30	27.3	26	41.9	19	57.6
No	159	88.8	80	72.7	36	58.1	14	42.4
Totals	179	100.0	110	100.0	62	100.0	33	100.0

*Seven separated and two divorced women are eliminated from this tabulation.

Also in Report No. 2, it was suggested that age might be a factor. Curiously, as Table 25 illustrates the age distributions for repeaters and non-repeaters are almost identical.

Table 25. Age Distribution

	Repeat Pregnancy		No Repeat Pregnancy	
Ages	n	%	n	%
12	0	0.0	1	0.3
13	2	2.0	4	1.3
14	8	8.1	18	6.0
15	20	20.2	66	22.0
16	32	32.3	93	31.0
17	25	25.3	84	28.0
18	10	10.1	27	9.0
19	2	2.0	7	2.3
Totals	99	100.0	300	100.0

For the unmatched distributions in Table 25 it appears that age is not related to repeat pregnancies.

Next, an analysis was made matching by marital status the 96 women with repeat pregnancies with another group of non-repeaters. (The seven separated and two divorced women were omitted from this analysis.)

Again there are statistically significant findings permitting the following rather obvious statements:

> Married women are more likely to have repeat pregnancies than single women.
>
> Women not using contraceptives are more likely to have repeat pregnancies than women using contraceptives.
>
> Married non-users of contraceptives are more likely to have repeat pregnancies than married users, single non-users, and single users of contraceptives in that order.
>
> Age is not related to having a repeat pregnancy.

In addition, other statistically significant findings were noted. When marital status was controlled women having repeat pregnancies had poorer academic performance during their stay at Ed-Med, were more likely to enter Ed-Med in their last trimester, were less likely to have employment experience prior to Ed-Med and were more likely to be school drop-outs. These relationships imply that those who do not have repeat pregnancies are somewhat more capable and responsible. Whether this is an individual characteristic or a reflection of the social support systems of these women the data do not say.

Finally, another analysis was made matching by marital status and follow-up time interval 81 women with repeat pregnancies with another group of 81 non-repeaters. The results are essentially the same.

Appendix

Representativeness of Follow-up Data

In this Appendix are seven tables comparing all Ed-Med School students (n=776) with the Follow-up Group (n=411) used as the basis for this report. Inspection of the tables reveals that the data used for the report are nearly identical with the data for all students. For that reason it is appropriate to assume that the results of this report are generalizable to all students at the Educational-Medical School.

Age Distribution

Age in Years	All Ed-Med Students n	%	Follow-up Group n	%
11	1	0.1	0	0.0
12	1	0.1	1	0.2
13	12	1.5	6	1.5
14	56	7.2	28	6.8
15	163	21.0	90	21.9
16	288	30.7	131	31.9
17	206	26.6	109	26.5
18	80	10.3	37	9.0
19	19	2.5	9	2.2
Totals	776	100.0	411	100.0

Marital Status During Ed-Med

Marital Status	All Ed-Med Students n	%	Follow-up Group n	%
Single	648	83.5	351	85.4
Married prior to pregnancy	12	1.6	6	1.5
Married during pregnancy	116	14.9	54	13.1
Totals	776	100.0	411	100.0

I.Q. Scores

Scores	All Ed-Med Students n	%	Follow-up Group n	%
70 or less	19	2.7	10	2.6
71-80	65	9.2	31	8.1
81-90	158	22.3	98	25.5
91-100	241	34.0	132	34.3
101-110	158	22.3	83	21.6
111-120	56	7.9	26	6.8
121-130	10	1.4	4	1.0
131-140	1	0.1	1	0.3
141 and over	0	0.0	0	0.0
Totals	708	100.0	385	100.0
No information	68		26	

Race

	All Ed-Med Students n	%	Follow-up Group n	%
Black	701	92.6	384	95.0
White	55	7.3	20	5.0
Other	1	0.1	0	0.0
Totals	757	100.0	404	100.0
No information	19		7	

Grade Level at Ed-Med

Grade Level	All Ed-Med Students n	%	Follow-up Group n	%
7th	9	1.2	6	1.5
8th	43	5.5	20	4.9
9th	134	17.3	79	19.2
10th	181	23.3	100	24.3
11th	222	28.6	106	25.8
12th	187	24.1	100	24.3
Totals	776	100.0	411	100.0

Trimester of Pregnancy for Entrance at Ed-Med

Trimester	All Ed-Med Students n	All Ed-Med Students %	Follow-up Group n	Follow-up Group %
First	82	10.7	44	10.8
Second	486	63.3	238	58.3
Third	200	26.0	126	30.9
Totals	768	100.0	408	100.0
No information	3		3	

Length of Attendance (in months) at Ed-Med School

Number of Months	All Ed-Med Students n	All Ed-Med Students %	Follow-up Group n	Follow-up Group %
1 or less	37	4.8	9	2.2
2	80	10.3	25	6.1
3	117	15.1	69	16.8
4	176	22.7	112	27.3
5	152	19.6	89	21.7
6	93	12.0	46	11.2
7	52	6.7	22	5.4
8	29	3.7	16	3.9
9 or more	40	5.1	23	5.6
Totals	776	100.0	411	100.0

Senator **Kennedy**. Do you know whether they have that or whether they do not?

Dr. **Lowe**. I can only tell you I will attempt to provide the depth of information that you have requested.

My statement was that I am not aware of any successful medical intervention which clearly prevents these adverse outcomes within this age group.

Senator **Kennedy**. We want to know also whether these services are being provided in any of the existing centers within the present system, and what their results are.

Dr. **Lowe**. We have had within the Department experience with comprehensive services; one of the most impressive was a school in the District of Columbia, which provided comprehensive services, including health services and education.

There is also a very good program in the State of Delaware which attempts to provide these comprehensive services within the framework of existing legislation and authority.

The point I am trying to make is that I am not convinced that the balance offered to each girl is appropriate, that is, whether it is clearly presented that she does have a choice. I believe that is the issue that concerns you and I attempted to address it.

Senator **Schweiker**. As I sit here and listen to the economics of it, I wonder how you can say you have a choice when you throw the burden back on the State in the name of reducing the Federal budget. The State option is $180 for abortion and $1,200 or $2,000, and with the States' financing in the shape it is in today, what really free choice is there?

It seems to me that free choice is more of a study goal than reality.

If we are going to keep throwing the burden back on the States, and if it is $180 versus $2,000, what real incentive does the State have to do anything but to push one aspect of it?

Can anybody enlighten me?

Mr. **Sopper**. I think Dr. Hellman would like to comment.

Dr. **Hellman**. I would like to add to what Dr. Lowe said.

The program I am responsible for, I think, has done a fairly good job with teenage pregnancies, not a perfect job.

Twenty-nine percent of our patients are teenagers. This percentage has risen over the years as the percentage of our older patients has dropped.

Senator **Schweiker**. What percentage?

Dr. **Hellman**. Twenty-nine percent of the 3.4 million patients in organized family planning programs are 19 or younger.

Senator **Schweiker**. What percent of those end up with abortion versus those carrying to full term?

Dr. **Hellman**. These are family planning patients.

They do not come in pregnant. They come in with the desire to prevent a pregnancy. In other words, this is prevention.

We do have in the Family Planning Act a section that provides funds for information and education. This has never been fully funded in the 5 years that I have been here through its authorization and recently has had a 50-percent cut so that it is down to approximately $300,000 instead of roughly a million dollars.

Nevertheless, I think we made some progress in the education of teenagers.

We have had television spots and nationwide multimedia program campaigns, some of which were directed at teenagers.

In addition to that, the Assistant Secretary for Education has just formed a subcommittee of the Interagency Committee on Education directed at family life or population education for primary and secondary school children.

I chair this committee, and it has just had its first meeting. What will come of it, I do not know.

There is very little experimentation about this type of education in school systems in the United States, and I am not sure that any of us really know how to overcome the barriers of parental objection and all the things that go with it.

Senator SCHWEIKER. What agencies and groups are represented on that committee?

Dr. HELLMAN. There are about 18 people on the committee. The Domestic Council and most of the agencies of the Government are represented.

I can give you a list of the names.

Senator SCHWEIKER. What authority do you have in terms of advisory, action oriented, planning, or what is the ultimate responsibility?

Dr. HELLMAN. I have a lot of authority on paper, because the Office of Population Affairs is the lead agency in HEW.

Senator SCHWEIKER. If you agree on the policy, I guess my question is, Can it be implemented or is that an advisory situation?

Dr. HELLMAN. If I agreed on policy and there was no money, it could not be implemented.

Senator SCHWEIKER. Assume there was money.

Dr. HELLMAN. Yes; I think we could convince the Secretary to implement it.

Mr. SOOPER. Mr. Chairman, if we might, I would just like to come back to your previous question, where you were interested in learning about those activities in existing projects that were covered by the bill.

I think Dr. Van Hoek can make a comment on maternal and child health programs.

Dr. VAN HOEK. There have been a number of projects which have taken the approach which is outlined in your bill, and a number of them are modeled after special projects which were supported by our maternal and child health program and by other agencies, both Federal as well as public and private.

Some of these projects were in New Haven, Hartford, and Baltimore, and the District of Columbia, the Webster School and in other areas of the country.

These projects have dealt in each case with a limited number of teenage pregnancies.

They have demonstrated that with this kind of comprehensive service, that through remedial education, special education, or changing attitudes on the part of the school system, these individuals can finish school and can continue to take care of their children; that is, in the short run, they have shown to have positive impact. However, in the long run, in some cases 2 years after the project, the evidence is not that clear, because in essence, there is a split between a group that shows no significant change from the control population, and in others there continues to be a positive impact. But the number is relatively small in what we have done.

I would like to add to what Dr. Hellman indicated and that is, in our experience in maternal and child health planning programs, it is not a question of the intent of the programs to deal in a comprehensive fashion with this problem, it is rather a question of how do we deal with this complex problem in relation to the cultural and social attitudes of the population as well as the attitudes of the provider, the participating agencies.

The school programs have attempted in many instances to develop family education programs.

They have continued the children in school systems but they sometime have been blocked by opposition from the parents and from the community at large.

This is not uniform, but there are instances of that.

There have been instances and we see numerous Congressional inquiries on this subject, where various organizations and citizens object violently to the development of some of these programs in the schools and object to the fact that we try to provide services to teenagers without the knowledge of the parents.

So there is not a unanimity of opinion as to what the best approach is in dealing with these problems.

As you know also, there are States where we have problems with the legal consent age. Some States have passed legislation concerning parental consent requirements for family planning services or for treatment of venereal disease.

Senator KENNEDY. That is an incredible response to the legislation we are considering, because we know that in some schools they will not permit sex education. Yet you are proposing a program that is trying to do something about expectant mothers.

I do not follow the logic of it.

I do not think that any of us are questioning what happens in local communities, or the difficulties in changing mores or attitudes toward facts. But what we are dealing with is reality; that you have got hundreds of thousands of expectant teenage girls that are in need of help.

That is the issue. That is what we are trying to focus on.

We are trying to bring the various kinds of resources which you have listed in your programs, and which are not being coordinated, not being focused, and not being directed, and we are trying to develop a meaningful program. That is what we are attempting to do.

We cannot get into all the other kinds of issues or questions about changing people's mores and attitudes and all the rest. No one is suggesting that that is going to be the scope or the purpose of the legislation.

We are dealing with very precise problems that are growing in intensity. The important and impelling and impressive statistics indicate that unless we do not move on it, we are on the slippery, sliding slope of not only enormous kinds of personal anguish and harm to individuals, but also enormous kinds of social costs.

We are going to hear later from some of the panels about the effect that this type of program has, and what it has meant in terms of local communities.

But the doctor over here referred to the various examples that have been done before, and mentioned the Delaware situation. We are going to hear from the people that have been involved in that.

I have had a chance to review their testimony. It runs quite contrary to what your suggestions are, in terms of people who have remained in schools and not on welfare, and their reduction of repeat pregnancies.

I am not convinced that these various centers that you talk about are providing this range of alternatives, in the significant and important ways that have been outlined in this legislation.

So we will just see where we are going.

I do not know if you want to make any other comments.

Dr. HELLMAN. I would like to say that Dr. Van Hoek, in talking about barrier, was talking about the same thing I am talking about, namely, that I think the basic cure to this problem, and it is a real problem, is prevention.

I do not think that any of us know the methods that are available to us or that could be successful to prevent a pregnancy in a teenager.

Senator KENNEDY. I would be a lot more convinced of your position if your administration came up and articulated a meaningful program in terms of preventive measures health care.

The various kinds of programs that we have had up here in our Health Education Prevention Act was opposed by the administration.

You opposed various other kinds of provisions that we have attempted to put into legislation in terms of good preventive kinds of health care. You just do not see it.

Frankly, I believe that you believe in it, and I think that anybody that knows the problem has to believe in it.

Dr. HELLMAN. This is just exactly the assignment that was given to us by the Assistant Secretary for Health.

Senator KENNEDY. We will look forward to working with you in that area. In the meantime, we are going to pass this bill.

Senator SCHWEIKER. I think the issue here is whether OMB believes it.

Being on the Appropriations Committee, where a lot of good witnesses do come forth who believe in it, I see programs and ideas shot down and cut out when they reach the budgetary process. I am not asking you to respond to that, but I think we have to be fair and put some of the responsibility where it belongs, because OMB does not believe in a lot of these programs.

That is really what our argument is all about here.

Senator KENNEDY. Well, we will look forward to working with you on the preventive programs.

I hope you can get something up here.

We will give you early hearing and hopefully early action.

I want to thank you very much.

You can submit the information we have requested.

Mr. SOPPER. We will be pleased to do that.

[The prepared statement of Mr. Dickson follows:]

FOR RELEASE ONLY UPON DELIVERY

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

STATEMENT

BY

JAMES F. DICKSON, III, M.D.

ACTING DEPUTY ASSISTANT SECRETARY FOR HEALTH

BEFORE THE

SUBCOMMITTEE ON HEALTH

COMMITTEE ON LABOR AND PUBLIC WELFARE

UNITED STATES SENATE

TUESDAY, NOVEMBER 4, 1975

Mr. Chairman and Members of the Subcommittee:

I am pleased to appear before you today to present our views on S. 2538, a bill which would establish another special formula grant program under the Public Health Service Act for States to provide part of the cost of establishing and operating programs for the comprehensive care of pregnant school-age girls and their infants and children, as well as our views on S. 2360, which would promote similar objectives through direct grants to State agencies and to other non-profit organizations.

At the outset, let me emphasize Mr. Chairman that the Department is concerned about the problems of early, and often unwanted, and unintended pregnancy in teenaged girls, and we fully realize the need for adequate health care, including nutrition, and such social services as child care and job placement assistance for young mothers.

However, we are unable to support either S. 2538 or S. 2360. The Administration has committed itself to financing these health services through Medicaid and social service programs on a needs basis. These bills would provide additional narrow categorical programs which duplicate existing Departmental authorities and programs that already address the problem of teenage pregnancy; moreover, they would require additional funding at a time when the national need and the President's policy is to reduce the growth of Federal expenditures and lower budget deficits.

There is no accurate estimate of the number actually in need of the type of care that could be provided through S. 2538 and S. 2360, i.e., those mothers and children who are not already receiving care under Departmental direct service or financing programs, or through any number of private providers and State and charitable organizations. We believe a more efficient use of scarce Federal health dollars can be made in keeping with the Department's ultimate objective of a comprehensive health care system.

Within that framework, the promotion of family planning service on a needs basis, particularly through Medicaid and social services, offers much more potential than the addition of one more categorical program.

Background

Teenage pregnancy is both a social and health problem. The problem of teenage pregnancy poses a tremendous challenge to the health care system, first, because of the age of the persons involved, and second, because the infants of teenage pregnancies are at higher risk of low birth weight, and impairments in physical, mental, and emotional development.

Sexuality, pregnancy and even more delicate, the emotional and psychological aspects of wanting and needing a child, leave us with an inadequate incomplete understanding of the many dimensions involved in teenage pregnancies. But we are struggling with the question of how do we best assist teenagers in handling their sexuality, emotional needs and responsibilities. We must face the fact that programs, unless well planned and executed by warm, sensitive, nonjudgmental staff, can "turn off" teenagers rather than assist them. Launching programs with such precision requires careful planning and implementation.

Consequently, the Department will continue its emphasis on providing counseling, health education, and a full range of health services to the mother and infant.

Public Health Service Programs

Briefly, let me outline the programs in the Department which deal with pregnant teenagers and their related health care.

The Maternal and Child Health Program, authorized by Title V of the Social Security Act and administered by the Health Services Administration, has two programs which are particularly relevant: the Maternity and Infant Care projects which enable each State to promote the health of mothers and children through maternity and infant care, covering the period of pregnancy and the first year of life, and the Children and Youth Projects which provide comprehensive health services for children. These programs support a wide range of health care and services in accordance with the plans of the 50 States, the District of Columbia, and the territories. The range of services required by teenaged mothers and their infants are consistent with the services offered in these two programs. In fiscal year 1975 the Federal government spent $267 million in grants to States for Maternal and Child Health programs.

Maternity and Infant Care projects are supported to help reduce the incidence of mental retardation and other handicapping conditions caused by complications associated with childbearing, and to help reduce infant and maternal mortality by providing necessary health care to high-risk mothers and their infants. Three types of programs are authorized: (1) necessary health care to prospective mothers, including after childbirth, health care to mothers and their infants who have, or are likely to have, conditions associated with childbearing or are in circumstances which increase the hazards to their health; (2) necessary health care to infants during their first year of life who have any condition or are in circumstances which increase the hazards to their health; and (3) family planning services.

In 1973 the Maternal and Infant Care projects, authorized under Title V of the Social Security Act, served 9,600 teenage mothers fifteen years of age or under.

The Children and Youth projects provide comprehensive health care to meet the medical, dental, physical, and emotional health needs of children and youth, particularly in areas with concentrations of low-income families. Children enrolled in these projects receive continuous health supervision, including a range of assessment examinations, follow-up treatment, aftercare, and preventive care. The children receive not only the services of doctors, nurses, and dentists, but also those of nutritionists, social workers, psychologists, speech and hearing specialists, physical and occupational therapists, and many other types of personnel who get to know the child and his family over a period of time, and so are able to give personalized attention.

The needs of adolescents have begun to receive more attention in C and Y projects during the last few years. About 120,000 of the children in the projects in 1971 were between 10 and 21 years of age. Many projects have a special adolescent unit in which gynecological and venereal conditions are treated, and family planning education is provided to both male and female patients. If a girl becomes pregnant she is referred to the local M and I project for prenatal, obstetric, and postnatal care, and the care of the baby is handled by the C and Y project. If there is no M and I project nearby, she is referred to another local source of care.

Many projects provide family planning services within the project, or refer the patient to another source. They also work with schools and other agenices on programs of health, education, and social services for pregnant girls.

In addition to the services already being provided, the number of M and I projects is being expanded under the Program of Projects requirements of Title V of the

Social Security Act. In calendar year 1974, there were 61 operational Maternity and Infant Care projects. 20 additional projects will be operational by 1976. This will significantly increase the capacity to provide maternity and infant care to mothers of all ages.

In addition, the Maternal and Child Health program is an active and crucial participant in the Department of Agriculture's Special Supplemental Food Program for Women, Infants, and Children (WIC) which provides cash grants to make food available to pregnant and lactating women and to infants and children up to four years of age.

In fiscal year 1974 approximately 30% of the estimated 3.4 million served in all organized family planning programs were 19 years of age or under. Family planning services as provided through Title X of the Public Health Service Act and through Maternal and Child Health programs include a variety of health services in addition to family planning literature, counseling and contraceptive devices. Most of the users of family planning services receive complete medical examinations which include pap smear and other laboratory tests and pelvic and breast examinations. All elements of the family planning delivery system provide a high level of diagnostic health care to patients. Reported data suggest that family planning programs have become a major source of preventive health care for young, low-income and largely healthy women of childbearing age and represent a principal point of access to the health care delivery system for many young people.

Services offered at over 3,500 clinic sites include preparation of a medical history, a physical examination--including health screening tests for high blood pressure, anemia, venereal disease and cancer--and the provision of contraceptive services, infertility services and referral for other services when indicated.

Teenagers are a priority target group of the family planning program. It is mandatory that teenagers who are sexually active who are recipients under the AFDC program (Title IV-A) must be offered family planning services and that these must be provided promptly when requested. In the national multimedia campaign launched in 1974 to inform the general public about comprehensive family planning services, several of the TV and radio spots were specifically directed to teenagers. Educational materials have been developed for the adolescent population and distributed through service providers and exhibits. Hot lines and teenage clinics offering rap sessions have been established throughout the country. Special projects and studies have been undertaken such as:

1. Development of a model education program for the protection of adolescents against unwanted conception and venereal disease. This program is designed for junior high school students, teachers, and parents and includes a component for non-English speaking young people and their parents.

2. A demonstration model project, the first of its kind in the country, for working with young inner city males (fathers and potential fathers) regarding sexual and parental responsibilities.

The impact of these special services and programs are not measurable in terms of the number of unwanted births averted; however, access to family planning services and their acceptance by sexually active teenagers is steadily increasing. Of the 2.2 million patients served in programs receiving Title X funds in FY 1975, 29%, or approximately 600,000 were age 19 or less. All services are, of course, voluntary.

Within the Public Health Service, a number of other programs are targeted on specific population groups, all of which would provide the necessary care to an adolescent mother and her child. In addition, all programs are eligible to participate in the Special Supplemental Food Program for Women, Infants and Children of the Department of Agriculture. The programs include 157 Community Health Centers, most of which are located in medically underserved areas; the Indian Health Service, which provides direct health services to federally recognized Indian and Alaska Natives through a network of 51 hospitals, 99 health centers, and 300 health stations in 25 States. In addition, a portion of the formula grants to States for comprehensive health services under section 314(d) of the PHS Act is used for the provision of maternal and child health and family planning services.

The National Health Service Corps, authorized by section 329 of the PHS Act, has over 270 sites providing increased access to physician services and other medical services for persons who live in medically underserved areas.

Health Financing and Social Services

In addition to direct service and grant supported programs of the Department, programs under Titles XIX and XX of the Social Security Act are available to finance maternity, medical, social services and family planning services through private physicians and other sources for eligible teenagers

Those eligible for Medicaid coverage include children who are members of families receiving Aid to Dependent Children or who are covered by a State's medically needy program. The groups eligible for coverage at State option under Federal law include all individuals under 21 who meet the State income and resource standards even if they do not meet the definition of dependent child under the State's AFDC program.

Every Medicaid program must cover at least the following mandatory services: inpatient hospital care, outpatient hospital services, other laboratory and X-ray services, skilled nursing facility services and home health services for individuals 21 and older, early and periodic screening, diagnosis and treatment for individuals under 21, family planning and physician's services. States must provide all those medical services generally associated with perinatal child care.

Optional services that States can provide include clinic services, available in 41 States, prescribed drugs, available in 50 States, and emergency hospital services, available in 43 States.

The Early and Periodic Screening, Diagnosis and Treatment program (EPSDT) of Medicaid is a major initiative among the Department's health activities. The purpose of EPSDT is to identify and treat handicapping or potentially handicapping conditions early, before they become severe or irreversible problems. To date, under EPSDT, over 3 million children have received screening services.

On October 1 of this year, all States and the District of Columbia began to operate social service programs under the authority of the recently enacted Title XX of the Social Security Act. This law, which supplants the previous authority for services contained in Titles IV-A and VI of the Act, provides Federal funds to meet 75 percent of the cost of services (90 percent for family planning) furnished to eligible persons.

Services under Title XX are not prescribed by the Federal government. Rather, each State determines the services it will provide, so long as they are consistent with one or more of five goals set forth in the law: achieving or maintaining self-support, achieving or maintaining self-sufficiency, preventing or remedying abuse, neglect, and exploitation of children and adults, preventing or reducing inappropriate institutional care, and securing admission for institutional care when this is necessary.

No longer is entitlement to services limited to the status of persons as current, former, or potential recipients of financial assistance, as was true in the past. The law provides that services may be furnished to individuals or families with income up to 115 percent of the median income in the State, provided that a fee reasonably related to income is charged to those whose income exceeds 80 percent of the median income. States may, however, set lower eligibility levels if they choose.

Under Title XX, the citizens of each State play a major role in determining the content and coverage of the State's annual service plan. At least 90 days before the beginning of the program year the State must publish a proposed plan, based on a needs assessment, which describes the services to be provided and the types of persons eligible to receive them, by geographic area. After a comment period of at least 45 days, the final plan in prepared and published, with an explanation of any changes from the proposed plan that were made. Thus, ample opportunity is afforded for consideration of the needs of all groups, including school-age mothers and their children.

The bills specify a number of services for which Federal funds are available under Title XX. These include family planning services and counseling; counseling for the mother and her family and the father of the child; infant day care; adoption and foster care services; a coordinated program of social services, including educational, vocational, legal, social, counseling, and referral services (including adoption counseling); and services related to child abuse and neglect. To a limited degree, the same services are also available under Title IV-B which covers the child welfare service programs.

Office of Education

There is no specific Federal authorizing legislation in the educational field providing resources solely for school-age parent and related programs; however, a number of programs directed at a broader base of educational needs may provide incidental support for school-age parent programs. For example, Title I of the Elementary and Secondary Education Act during the current year is providing $1.9 billion for treating the problems of the educationally disadvantaged in elementary and secondary schools across the Nation. If local school authorities are confronted with a problem of providing educational and educationally related services for educationally deprived teenage parents who are otherwise eligible to receive Title I funds, then a reasonable portion of such funds could be used for the purpose of providing services for school-age parents. However, the provision of educational services for school-age parents is of such narrow dimensions that the information system associated with the educational programs administered by DHEW do not request recipient agencies to report expenditures in such distinct categories.

While no validated expenditure information is available to confirm the assumption that limited contributions are being provided under existing educational authorities to assist in meeting the needs of school-age parents, program officials suggest that some activities may also be taking place under the following auspices:

- -- The Adult Education Act
- -- Part F of the Vocational Education Act (Consumer and Homemaking Education)
- -- Title III of the Vocational Education Act (Work-Study)
- -- Indian Education Act (Part A)
- -- P.L.93-380, Part C - Educational Innovation and Support, a consolidated authority which includes continuation of both Title III of the Elementary and Secondary Education Act (Supplementary Centers and Services) and Title VIII of the Elementary and Secondary Education Act (Dropout Prevention).

Office of Human Development

In the Office of Human Development, there are a number of demonstration programs under the Office of Child Development which may have an impact on this overall problem area even though they are not directly focused on adolescent mothers. For example, the Child and Family Resources Program is a Head Start demonstration program designed to show that a Head Start program can assess individual family needs and tailor service delivery only to the specific needs identified. Pregnant adolescents and adolescent parents with young children have been enrolled in the program from time to time and have been provided, either directly or through referral, services such as nutrition education, counseling on parenting and family planning, and health care.

Another example of a demonstration project which may have an indirect impact on the adolescent mother is the Exploring Childhood program in which high school and junior high school students work with young children while learning about human development and their own identity. A curriculum was developed by

OCD in conjunction with the Office of Education and the National Institute of Mental Health on the theory that students in this age group should have opportunities to work with young children on a regular basis so that they can develop competency in preparation for parenthood nd also develop a framework for understanding the orces which shape human development.

epartment Position

We feel that these bills are objectionable on several grounds.

Under present MCH requirements, each State must establish or maintain at least one Maternity and Infant Care project and one Children and Youth project. These are intended as models for further development within the State programs. Within the total formula grant allotment to States under MCH each State must spend additional monies on programs which they determine as the highest priority. If a closer inspection of the problem of adolescent pregnancy reveals the need for increased emphasis within the State, the Department would work with States and State Health Departments to encourage them to devote a greater proportion of their Federal and State resources to this area. The bills under consideration would not allow free choice of program and priority decisions to be made by States.

Even assuming the addition of the projects being proposed, the problem of access to care for many teenagers may be caused by a lack of accessibility to a clinic site, or a lack of knowledge, or emotional barriers which prevent a pregnant teenager from seeking or receiving services. A better approach, we believe, would be increased emphasis on the use of existing programs and the social services and financing mechanisms of Medicaid in cases in which persons are unable to pay for their own care.

This is not to say that existing programs have no need for improvement. For example, within the Office of the Assistant Secretary for Planning and Evaluation of this Department, a study is underway to determine how best to reach teenagers in need of family planning services, and to make them more knowledgeable about services which are available and funding mechanisms which exist for payment for care. We need to work with States to remove restrictive State Medicaid and Social Service regulations for care to single teenagers where these exist. This will require increased effort within existing resources in public information and education and increases in the regional office and State communication regarding restrictive State requirements.

For example, Federal regulations governing family planning services under the MCH program require that projects make their services available to all people desiring these services. However, where State laws define the age of consent for medical or contraceptive services, we do not, of course, require that those laws be violated. In all federally subsidized clinics unemancipated minors requesting contraceptive services are encouraged to consult with their parents. As you are aware, however, many parents will not accept the fact that their teenager may be sexually active, and view availability of family planning services to adolescents as promoting promiscuity.

Many of the family planning medical and social services are subsidized under Title XX of the Social Security Act. Determination of eligibility under Title XX, however, must be supported by financial documentation. This raises the issue of confidentiality since minors would in most cases not have access to this information without parental knowledge. Hence, this requirement is currently viewed as a deterrent even to minors from eligible families receiving services under Title XX. The removal of these and other accessibility barriers is currently being addressed by Department programs.

I would like to reemphasize that it is important that we not try to solve each new or emerging problem by the establishment of a separate new program directed specifically to it. At this time when economic pressures are so great, we should make an extra effort to use already existing programs which were designed to meet such problems, to increase the effectiveness of our ongoing efforts, or, where necessary, to develop within these programs new approaches to meet new or emerging problems.

With respect to the freedom of choice issue, the Department recognizes that decisions on whether to have intercourse or not to have intercourse, to use or not to use contraceptives, to continue or terminate pregnancies, to keep or not to keep a child, are issues of free choice for each individual. The role of the Department is to assure that women in need have enough resources to make educated decisions along the way. The challenge is now to reach women to offer them the assistance and guidance to make decisions, and to encourage them to continue in a system of adequate health care. We question whether S. 2538, in particular, would allow for this degree of freedom.

Finally, I submit that S. 2538 particularly is dependent upon the States being able to undertake a ma[illegible] administrative burden on top of their administration of the program of projects under Maternal and Child Health. We believe the assumption that the authorization of large sums is sufficient to ameliorate this or any similar problem is open to serious question.

Other features to which we object are the requirements for further State plans and for an advisory committee and for reports to Congress already required by most of the programs we have discussed.

Conclusion

We think the suggestions we have outlined above in this testimony of 1) increased emphasis on family planning education for teenagers, both male and female, 2) continuing the ongoing effective programs for providing and financing health care for services within the MCH Program, 3) working with States where necessary to obtain an increased recognition of this problem and an increase of resource commitment by the State, 4) increasing public information and education regarding the source and availability of health services, 5) working with States to remove restrictive barriers to the receipt of services by teenagers under State Medicaid and Social Service programs, and 6) the development of a solution within the framework of a comprehensive health care system, is an effective approach to the increasing problem of teenage pregnancies.

The Department expects to meet this challenge through marshalling and directing existing resources in a way that will also encompass other emerging problems, even at a time when we must also be especially concerned with conserving limited resources.

Mr. Chairman, this concludes my remarks this morning. My colleagues and I will be pleased to try to answer any questions you may have.

Senator KENNEDY. Thank you very much.

Our next witness is Mrs. Shriver, to be accompanied by a distinguished panel of experts.

I want to welcome you.

How do you want to proceed, Mrs. Shriver?

Do you want to make a comment and then have the others comment?

STATEMENT OF EUNICE KENNEDY SHRIVER, EXECUTIVE VICE PRESIDENT, JOSEPH P. KENNEDY, JR., FOUNDATION, ACCOMPANIED BY MARJORY MECKLENBURG, PRESIDENT, AMERICAN CITIZENS CONCERNED FOR LIFE; LULU MAE NIX, STATE ADMINISTRATIVE DIRECTOR, DELAWARE ADOLESCENT PROGRAM, INC.; MS. DENESE SHIPP, DIRECTOR, ADOLESCENT PREGNANCY CLINIC, JOHNS HOPKINS MEDICAL SCHOOL; DR. JANET HARDY, PROFESSOR OF PEDIATRICS, JOHNS HOPKINS SCHOOL OF MEDICINE; JAMES F. JEKEL, M.D., M.P.H., PROFESSOR OF EPIDEMIOLOGY AND PUBLIC HEALTH, YALE MEDICAL SCHOOL; MS. JANET FORBUSH, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION CONCERNED WITH SCHOOL AGE PARENTS; MISS MYRA LINDSAY, TEENAGE MOTHER; RICHARD COCHRAN, YOUNG FATHER; MS. JOANNE SAFFER; ELIZABETH S. COLE, MEMBER, CHILD WELFARE LEAGUE OF AMERICA; AND HATTIE N. HARRISON, DIRECTOR OF DUNBAR NEIGHBORHOOD FACILITIES AND MEMBER OF MARYLAND GENERAL ASSEMBLY; AND MRS. SIDNEY CALLAHAN, AUTHOR AND LECTURER ON PARENTHOOD, A PANEL

Mrs. SHRIVER. Yes; Senator Kennedy, we have a very large group of people here this morning because we feel that this is an extremely serious problem. All of these people have been working on this issue in various phases over the last 4 or 5 years, and have different kinds of information that I think will be extremely helpful to the committee as it deliberates on this bill.

I would like to proceed and make my opening statement and then answer any questions.

I am pleased to be here today to testify about what I think is the most important occasion in all our lives. The birth of a child is still the most important, moving, far-reaching event that all of us experience.

Yet, a large numer of teenage girls, almost 1 million each year, are denied their basic human right—the right to make moral decisions free of coercion, with meaningful, realistic alternatives. At the moment, our teenagers are a neglected minority, coerced into accepting an end to fetal life because no decent options exist. Without alternatives to abortion, no moral choice is possible.

Despite some pilot Government programs, existing alternatives to abortion for the average teenage pregnant girl are unknown or unavailable to them. Inadequate prenatal care, school dropout, inadequate job training, inaccessible day care, high risk of prematurity—with even greater risk of mental retardation, and increasing alienation from society are the only alternatives. To make a fair choice the school age pregnant girl needs the same opportunities for a loving, happy life as the older woman now enjoys. She needs the same opportunities for a healthy infant and the same chance for its normal development.

To accomplish this, we need to establish centers for teenage mothers and their infants—centers which provide comprehensive and integrated medical, psychological, social, educational, moral, job training, and placement services.

All of us must realize that pregnancy by itself does not assure maturity. These are not mature, sophisticated women, but young, confused girls needing a continuous source of support and assistance.

Sex education and planning services in such a center are not enough by themselves to meet the many moral crises which teenagers face. The feeling of respect and responsibility will be developed along with a better sense of importance of nutrition, family planning, and parenting. These centers will provide ways of helping adolescents be better parents without encouraging more to become parents. These centers will be a place where volunteers may serve to provide continuous assistance and assurance. These centers are far more than simply a health-delivery system; they are truly a life support effort on behalf of the mother and child.

Certainly prenatal care is not denied such mothers now. Public education is still open. Although, here in Maryland only 10 percent of pregnant girls are still in school. Family planning exists in most communities. Nevertheless, the facts are unassailable. In teenage pregnancies the prematurity rate two or three times higher than in older women. Mental retardation and developmental disabilities occur at lease twice as frequently; 75 percent of teenage girls drop out of school and adolescent pregnancy is the major cause of school dropout for girls. And 60 percent lose opportunities for employment and end up on welfare rolls.

Day care is out of reach financially or geographically so infant development frequently lags behind. For example, only about 1 percent of school districts across the Nation offer infant care services. Without readily available day care for their babies, many teenage mothers cannot return to school.

This is serious for a number of reasons. For example, repeated teenage pregnancies occur now in over 50 percent of the cases within 2 years after the birth of the first child.

Yet, there is evidence that one of the best ways for preventing second and even third pregnancies in teenage mothers is to have the mother return to school. This has been accomplished successfully in the Johns Hopkins University-Dunbar School program for teenage mothers in Baltimore. It is very encouraging that of 12 teenage mothers graduating from Dunbar High School this spring, 8 went on to college and are still there. Although this is a small sample, similar success has been achieved in other communities when teenage mothers have received adequate support.

Often teenage mothers do not receive comprehensive health services. We know that health services given during the prenatal period can prevent further complications by improving nutrition of the mother and of her baby as well—a most essential factor. Dr. Philip Dodge, in his book "Nutrition and the Developing Nervous System," clearly links malnutrition in a mother with inadequate development of the fetus. These centers can help overcome this problem.

Dr. Dodge states in that book:

> It seems clear that severe malnutrition in children is associated with objective evidence of impaired size, chemical composition, and nervous system function. Furthermore, it is difficult to escape the conclusion that nutrition is at least a major determinant of these findings. Certainly nutritional rehabilitation results in recovery from most of these acute clinical and physiological abnormalities.
>
> Intellectual deficits persisting into the later life have been noted in many studies of malnourished children.
>
> Data support the conclusion that severe protein calorie malnutrition sustained during infancy and early childhood, when the nervous system is developing rapidly, is associated with reduced head size and brain waves.

The very limited pilot programs already established clearly work. Prematurity rates have been reduced by half. School dropout rates are only a fraction of those not receiving special services. Ninety percent will return to school to continue their education and develop more fully as responsible human beings. These teenage participants know that with proper vocational guidance, they will get jobs and provide for their babies. They know that with proper family counseling the incidence of divorce will be lessened. They know that with family planning services and educational successes the number of repeat pregnancies will be reduced by at least 80 percent. They know that through improved parenting skills the mental development of their offspring will be markedly improved.

Perhaps you have heard of the Brookline Early Education Experiment which operates on the theory that a child's future intelligence, social competence, and general ability to learn are all largely determined before the age of 3. This theory has considerable support from recent research on children. If taken seriously, it means that parents, rather than teachers, perform the major educational job in the Nation—and that it is essential to insure that they do not botch it. This is why I constantly stress the importance of giving teenage mothers parenting training.

I am involved with the Joseph P. Kennedy, Jr. Foundation which has been working with experts in medicine, psychology, and education on this proposed program specifically for more than 3 years.

The plans we propose are not hastily conceived or purely imaginary. We have a center like the one we propose in this legislation already in operation in Baltimore. In this center an integrated relationship has been developed between a hospital, an infant center and a high school. The idea is to treat the teenage mother, her infant, and the father, too, as whole persons.

A course entitled "Respect, Responsibility and Family Counseling" is being developed to include such subjects as maternal and fetal development, nutrition, emotional changes that occur during pregnancy, sex education and values, drugs and alcoholism, family planning, labor and delivery and parenting. For $500 extra cost, the teenage family receives the help needed from near the outset of pregnancy until 2 years after the baby is born.

Heavy emphasis in the Hopkins Center is on preventive services. And, while I recognize that the Hopkins project gives formal followup assistance for 2 years, many of the younger girls, of course, will need continuing help for 4 or 5 years. This means that we need many kinds of people, one is the professional, another is someone from the community, maybe even a graduate of the program, who can be a friend for many years.

This is my concept of a center for teenage mothers and their infants. Unfortunately, far less than 10 percent receive this kind of help now. I would hope through this legislation that many more similar centers can be established in every State.

Only in a newborn child do we see what might have been, but still might be. Only in the newborn child do we catch a glimpse of absolute innocence pure beauty, soul untouched, raw possibility and soaring hope.

Who can say that the squalling, helpless infant that we hold in our arms may not save someone from suffering or lead men to peace.

Who knows; Thank you.

Senator KENNEDY. Thank you very much, Mrs. Shriver.

I hope that during the panel we could address ourselves to some of these points that have been made by the administration.

I would be interested in learning, in terms of the various kinds of social programs for keeping young people in school and seeing them proceed in terms of their own life development, whether this is temporary or something meaningful.

We would be interested in whatever you would like to say about that or perhaps the panel later on will get into that.

[The prepared statement of Mrs. Shriver follows:]

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TESTIMONY OF
EUNICE KENNEDY SHRIVER
BEFORE
THE SENATE SUBCOMMITTEE ON HEALTH, NOVEMBER 4, 1975

I am pleased to be here today to testify about what I think is the most important occasion in all our lives. The birth of a child is still the most important, moving, far-reaching event that all of us experience.

Yet, a large number of teen-age girls, almost 1 million each year, are denied their basic human right -- the right to make moral decisions free of coercion, with meaningful, realistic alternatives. At the moment, our teenagers are a neglected minority, coerced into accepting an end to fetal life because no decent options exist. Without alternatives to abortion, no moral choice is possible.

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To accomplish this, we need to establish centers for teen-age mothers and their infants -- centers which provide comprehensive and integrated medical, psychological, social, educational, moral, job training and placement services.

All of us must realize that pregnancy by itself does not assure maturity. These are not mature, sophisticated women, but young, confused girls needing a friendly hand, an "anchor person" to provide a continuous source of support and assistance.

Sex education and planning services in such a center are not enough by themselves to meet the many moral crises which teenagers face. The feeling of respect and responsibility will be developed along with a better sense of importance of nutrition, family planning and parenting. These centers will provide ways of helping adolescents be better parents without encouraging more to become parents. These centers will be a place where volunteers may serve to provide continuous assistance and assurance. These centers are far more than simply a health-delivery system; they are truly a life support effort on behalf of the mother and child.

Certainly prenatal care is not denied such mothers now. Public education is still open. Day care centers are available. Although, here in Maryland only 10% of pregnant girls are still in school. Family planning exists in most communities. Nevertheless, the facts are unassailable. In teen-age pregnancies the prematurity rate is 2 to 3 times higher than in older women. Mental retardation and developmental disabilities occur at least twice as frequently. 75% of teen-age girls drop out of school and adolescent pregnancy is the major cause of school drop-out for girls. And 60% lose opportunities for employment and end up on welfare rolls.

Day care is out of reach financially or geographically so infant development frequently lags behind. For example, only about 1% of school districts across the nation offer infant care services. Without readily available day care for their babies, many teen-age mothers cannot return to school. This is serious for a number of reasons. For example, repeated teen age pregnancies occur now in over 50% of the cases within two years after the birth of the first child. Yet, there is evidence that one of the best ways for preventing second and even third pregnancies in teen-age mothers is to have the mother return to school. This has been accomplished successfully in the Johns Hopkins University-Dunbar School program for teen-age mothers in Baltimore. It is very encouraging that of 12 teen-age mothers graduating from Dunbar High School this spring, 8 went on to college and are still there. Although this is a small sample, similar success has been achieved in other communities when teen-age mothers have received adequate support.

Often teen-age mothers do not receive comprehensive health services. We know that health services given during the prenatal period can prevent further complications by improving nutrition of the mother and of her baby as well -- a most essential factor. Dr. Philip Dodge, in his book "Nutrition and the Developing Nervous System," clearly links malnutrition in a mother with inadequate development of the fetus. These centers can help overcome this problem.

Yet the very limited pilot programs already established clearly work. Prematurity rates have been reduced by half. School drop-out rates are only a fraction of those not receiving special services. 90% will return to school to continue their education and develop more fully as responsible human beings. These teen-age participants know that with proper vocational guidance, they will get jobs and provide for their babies. They know that with proper family counseling the incidence of divorce will be lessened. They know that with family planning services and educational successes the number of repeat pregnancies will be reduced by at least 80%. They know that through improved parenting skills the mental development of their offspring will be markedly improved.

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What we are calling for in this legislation is not a new health care system, not new public education or social welfare or food stamp programs, but rather the opportunity to put the already existing pieces together. We are seeking to develop far more than health care alone. We want to give each pregnant girl a carefully planned and executed prescription to meet her needs; to provide counselling and moral guidance; to provide nurture and supervision of her infant so that its full potential can be attained. We call for centers for teen-age

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mothers and their infants that will assure a full life support effort as a true alternative to abortion.

I am involved through the Joseph P. Kennedy, Jr. Foundation with the Johns Hopkins Center for Teen-age Mothers and Their Infants. Here an integrated relationship has been developed between a hospital, an infant center and a high school. The idea is to treat the teen-age mother, her infant, and the father too as whole persons. A course entitled "Respect, Responsibility and Family Counseling" is being developed to include such subjects as maternal and fetal development, nutrition, emotional changes that occur during pregnancy, sex education and values, drugs and alcholism, family planning, labor and delivery and parenting. For $500 extra cost, the teen-age family receives the help needed from near the outset of pregnancy until 2 years after the baby is born.

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This is my concept of a center for teen-age mothers and their infants. Unfortunately, far less than 10% receive this kind of help now. I would hope through this legislation that many more similar centers can be established in every state.

The philosopher Camus said it best: "Perhaps we cannot prevent this world from being a place in which children are tortured, but we can reduce the number of tortured children." If you Senators don't help the teen-age girl and her infant -- who else in the world will?

Mrs. SHRIVER. Next is Dr. Janet Hardy.

Dr. HARDY. I think, Senator Kennedy, that you put your finger on the problem when, after listening to the people at HEW, you said how could a 15-year-old child find her way through the maze of services that are offered.

I would like to address this question first.

Senator KENNEDY. You can ask most of those Senators who voted on those bills, and they will not tell you how to find their way through, let alone a child.

Dr. HARDY. There are numerous services as was described. But the failure that I see is in integrating the services so that a young child is helped to find what she needs.

I think that your bill proposes to provide this information.

I would like to say who I am and why I am here.

I am professor of pediatrics and of Public Health Administration at Johns Hopkins University. For the past 15 years I have been working in a long term child development study.

We have had particular interest in seeking causes for mental retardation and neurological deficits.

Approximately 5,000 pregnancies were included in the Johns Hopkins study and the surviving children followed; they are now between 10 and 16 years of age. Approximately 550 infants in the study were born to girls of 16 years and below. The enclosed table shows the high risks of adverse outcome for the infants of school aged mothers in the Johns Hopkins study. Rates of prenatal deaths, infant deaths, premature births, neurological deficits, and mental retardation—as indicated by an IQ of 70 or below at ages 4 and 7 years—are all far above those for the infants of women in the optimal 17- to 25-year-old group. For example, approximately 10 percent of the 4-year-olds had IQ scores in the retarded range, which is nearly five times the proportion of the general population.

In this group of mothers 10 percent had repeat pregnancies. The toxemia of pregnancy occurred in 37 percent of these young mothers as opposed to about 7 or 8 percent of the women who were older.

We know very well that toxemia of pregnancy leads to neurological deficits and mental retardation in surviving children.

In the new program providing care for adolescent mothers which has been in effect at Johns Hopkins for 2 years, the rate of toxemia is reduced to almost nothing by good prenatal care.

In the group of 550 young mothers, the rate of prematurity was 22 percent, and many of these babies died. In the prematurity clinic, during the past 2 years, the rate of prematurity has been down to 14 percent. This is still higher than the rate for older women which runs at around 7 or 8 percent.

It is a substantial reduction, over 22 percent.

These girls were from the same kind of population background, so that the comparison is a reasonably fair one.

I think intervention can help, even short-term intervention during pregnancy.

Let me go on with the findings among the children of our 550 mothers.

About 10 percent of these children had neurological findings which were not normal when they were a year old. When they were 4 years old and had IQ studies, 11 percent of them had IQ scores of 70 or below. Now, 70 is the cutoff point on which mental retardation figures are derived.

In a general population about 2.6 percent have IQ's in that range, and in this population about 10 percent.

But more significantly, I think, is the fact that in the general population 25 percent of people have IQ's of 110 or above.

That is in the above average group.

In our population this was reduced to just under 3 percent. And that is a heavy burden for the young mothers to bear.

Senator Kennedy. Could you give me that again in terms of IQ?

Dr. Hardy. At age 4 the children of the young mothers, 11 percent of them had IQ's of 70 or below.

In the general population of the country as a whole, the comparable figures are about 2.6 percent.

I have got figures for age 7, and you might like to have them because they raise an interesting point.

Senator Kennedy. Do your statistics show that with the treatment that you are talking about here, the IQ goes up, too?

Dr. Hardy. We have not followed the children long enough to know yet. The special adolescent clinic at Hopkins has only been in effect for 2 years.

Senator Kennedy. Is that an area that you are attempting to measure?

Dr. Hardy. Yes. I think we would try to get a handle on it.

Senator Schweiker. You were going to give us age 7?

Dr. Hardy. Yes. At age 7, 5.3 percent of the 550 children of young mothers had IQ's of 70 or below, as compared with 2.2 percent in the population. And at age 7, just over 2 percent had IQ's above 110, as compared to 25 percent of the population.

I think the drop between or the change between age 4, where 11 percent of the children scored very low, and age 7 where roughly half as many scored low, is an important point to focus on.

I think this reflects the children growing up in an environment which is not meeting their needs and not stimulating their intellectual development.

I have one other aspect I would like to add, and again it comes to Senator Schweiker's comment about crime.

Senator Schweiker. That was Senator Beall's comment.

Dr. Hardy. The comment about crime, anyway. I think it is an important comment.

We have some data on the children of young mothers with respect to school performance when they are age 13.

Actually, we looked at a sample of all 13-year-olds and of those children who were two grades or below, many of these children were children of very young mothers.

We looked at a group of children in our population who had the misfortune to set major fires. And this is a small group. There were 15 children in the group. Sixty percent of the mothers had been below 17 at the time that they delivered their children.

I think we concluded from examining the data that this kind of behavior resulted from a combination of minimal neurological damage which leads to the development of poor behavior controls, on the one hand, and growing up in a family situation which did not foster the development of behavior control on the other.

I use just this one example, as pointing up the fact that there are serious sociological problems in these children.

I would like to turn the coin over, though, and make it very clear that we know of families where the mother was 15 or 16 when she had her baby, but the mother has finished school, she has a job, she is gainfully employed.

We actually know of one of these families where the child is in a very well-known Baltimore private school. The mother has done so well with her child that she has had a major social success.

Many of the mothers are successful, and it is important to recognize that there are family strengths which can be built on, and this is not a hopeless situation.

Now, to address what I see as the needs for these young mothers.

I think that because the problems stem from a mix of biological immaturity on the part of the mother, that relates to neurological damage and prematurity, that is on the one hand, and on the other hand the social problems faced by the mother and the young father and this difficulty in making a suitable stable environment for the child, that the program should really address three kinds of issues.

The one issue has to do with assessment of need for each individual mother, because they differ. The resources available to each individual mother also differ.

I will be quick. I am taking up too much time.

But the assessment of medical, psychological, social educational needs; second, the utilization of resources which are available in the programs described this morning, and third, a program of prevention must be a very basic keystone.

This involves working in the public schools to develop good programs in family life and sex education.

Senator KENNEDY. If I could interrupt you, you have been in this field of pediatrics for how long?

Dr. HARDY. All my professional life.

I am getting old enough that I do not like to talk about how long.

Senator KENNEDY. I knew I should not have asked it.

For a long time, a number of years at any rate.

Just let me ask you: Why are existing programs that have been listed by HEW not working, from a professional viewpoint, and from a person that has obviously given an enormous amount of work to this?

Dr. HARDY. They are not working because they are fragmented. That is one basic reason.

Another reason is, they—it is that these kids are really too young and too unsophisticated to be able to win their way through without some help.

There is a pattern in the Federal Government which can be very useful here. I am old enough to remember the development of the crippled children's program, and as a matter of fact, when I worked for the health department in Baltimore City, I introduced the crippled children's program there.

That was the program which identified individual needs for handicapped kids and used community resources with some Federal support to get these needs taken care of.

I think, Senator, unless you have some questions, I would like to let it rest there.

Senator **Kennedy**. That is fine.

As I understand, your support for this legislation is because we are bringing those resources together in a consolidated, coordinated, and as precise a way as can be done?

Dr. **Hardy**. That is the principle, as I understand.

[The prepared statement of Dr. Hardy follows:]

Testimony in Support of the National School-Age Mother and Child Health Act of 1975

I am Dr. Janet Hardy, Professor of Pediatrics and Professor of Public Health Administration at Johns Hopkins.

For the past 15 years, I have directed the Hopkins Child Development Study and have participated in the NINCDS Perinatal Study. The objectives of these studies have been the identification of causes of pregnancy wastage, including the long term outcomes of mental retardation and neurological deficit.

Approximately, 5000 pregnancies were included in the Johns Hopkins Study and the surviving children followed; they are now between 10 and 16 years of age. Approximately 550 infants in the study were born to girls of 16 years and below. The enclosed table shows the high risks of adverse out come for the infants of school-aged mothers in the Johns Hopkins Study. Rates of perinatal deaths, infant deaths, premature births, neurological deficits and mental retardation (as indicated by an IQ of 70 or below at ages 4 and 7 years) are all far above those for the infants of women in the optimal 17 to 25 year age group. For example, approximately 10% of the 4 year olds had IQ scores in the retarded range, which is nearly 5 times the proportion in the general population.

Pregnancy complication or Outcome for 525 girls, in the Johns Hopkins Child Development Study, who were 16 years or less at time of delivery.

Item	Percent Occurrence
Prior pregnancy	10
Toxemia of Pregnancy	37
Perinatal death	4
Prematurity (birth weight below 5½ pounds)	22
Neurological status other than normal at 12 months	10
IQ at 4 Years	
70 and below	11 (General pop. 2.
110 and above	5 (General pop. 25%
IQ at 7 years	
70 and below	5.3 (Gen. pop. 2.2
110 and above	2.8 (Gen. pop. 25

When sub-groups of children failing in school and setting serious fires were studied, the children of young mothers made up 35% of the former and 60% of the latter group, whereas they were only 12% of the total population. Other serious problems such as child abuse, delinquent behavior and early pregnancies among the children themselves have been encountered. Yet, some of the young mothers and their children have been successful. These mothers have completed their schooling, hold good jobs, have established satisfactory family life and their children are doing well and should be successful also.

While there is beginning to be wide appreciation of the multiple problems of these young families and programs are becoming available to alleviate certain aspects, such as prenatal care, education and day care for the infants, there is little coordination among them.

What is needed is a federally supported program to prevent the human wastage resulting from this problem. Such a program should provide a mechanism for a coordinated approach to:

1) Assessment of needs: ie. medical, psychological, social, educational, vocational and for child care of each pregnant girl.
2) Utilization of available resources to meet these needs, ie. family and community and as the community resources are often insufficient, to promote their development.
3) Prevention of pregnancy during the school years by promoting development in the schools of curriculum in family life, child development and sex education emphasizing personal responsibility, strengthening family ties, reproductive physiology and the advantages of delaying pregnancy until the more favorable age of 17-25 years.

Our studies have led us to conclude that the high risks for the school aged mother and her infant result from two general causes. One, the biological immaturity of the girl leads to complications of pregnancy and neurological and intellectual impairment of the child. Two, the difficult social and educational circumstances which confront teen aged parents further inhibit optimal development of the child.

At Johns Hopkins, an Adolescent Pregnancy Clinic was established two years ago under the direction of Dr. Theodore King, chairman of the Department of Obstetrics and Gynecology. This clinic provides comprehensive medical, social, nursing and educational services during pregnancy, labor and delivery and the immediate post partum period. Statistics on the first 200 cases indicate a marked decline in toxemia and perinatal death. Prematurity has also declined somewhat.

This program is being extended to provide more comprehensive services, with emphasis on the social and educational/vocational and child development aspects of the young family. A psychological assessment of the pregnant girl, highlighting intellectual, educational and vocational strengths and weaknesses will be integrated into the team approach to meeting her individual medical, social and educational needs. A two year follow-up of each mother-child pair is planned to extend services beyond the post partum period--utilization of existing community resources for education, day care and vocational training will be coordinated into the program.

A major goal is delay of second pregnancy for three to five years, as this makes a significant difference in eventual successful outcome in terms of completion of education and entry into employment for mother and satisfactory physical and development for the child.

We are committed to working with the Department of Education in the development of a new curriculum designed for all children, boys and girls, from Kindergarten through high school , to build social and national committment and to prevent juvenile pregnancy and promote family life and child development.

Senator **Schweiker.** Dr. Jekel.

Senator **Kennedy.** I want to say that we have a very nice biography on each of you which we will include in the record.

Dr. **Jekel.** Mr. Chairman, my name is James F. Jekel.

I am associate professor of public health at Yale Medical School.

My major research interest for the past 8 years has been the problems of, and programs for, school age mothers.

Senator **Kennedy.** I would like you to hit the high points. Just what are the things you want to say to us? Please summarize those.

Dr. **Jekel.** I have submitted my major testimony in writing, however, I would like to emphasize two points briefly here and then make a comment or two in response to the administration's position.

The first point is that studies that have been done do demonstrate, at least over the short run, impacts in the direction that is desired. This has not always been seen in social and medical programs.

Senator **Kennedy.** Just tell me what that means.

Do you mean the studies that have been done will support this kind of coordinated, consolidated approach?

Dr. **Jekel.** That is true.

Senator **Kennedy.** Will your statement make those studies available to us?

Dr. **Jekel.** Yes.

More specifically, those receiving the special services, special comprehensive services from two programs in Connecticut, were much more likely to return to school. They had more healthy babies and they delivered subsequent pregnancies longer than did the comparison group that did not have these special services.

The intervention time was short. Usually, for pregnancy delivery and immediately afterward, it often took 6 to 8 months. The impact of these programs was clearly visible for a year or more following that.

I would like to emphasize the importance of continuing this support for a longer period of time to enable the young mothers to complete their education, and to avoid further mortality and morbidity associated with rapid subsequent childbearing.

Continued support has to do with cost and benefits. I believe that the costs of inaction are then greater than the costs of action, because if these young women and their children are allowed to drop out of society, because they are ostracized, defeated, and in despair; if they have no hope of achieving the life they see all the time in the mass media, then they are likely to yield to defeatism and take the road to economic dependency.

I believe we cannot afford to let this happen as a society. In addition, there are very important humanitarian concerns.

In response to what I understood to be the position of the administration, I agree with Dr. Hardy that one of the failures with existing programs is the inadequate coverage.

Take infant maternal health care programs and children and youth programs which have been mentioned by the administration. There simply is not adequate coverage. For example, in Connecticut there is only one maternal and infant care project which is located in Hartford serving a population of approximately 150,000 people. That in a State with a population of 3 million. There is only one children and youth program in the State which serves a population of approximately 20,000.

The coverage of these two projects is a very small proportion of the total population in the State. In terms of specifics about lack of coordination, in one city there is no coordination between the scheduling of the prenatal care and school classes, so that either a mother has to miss school or not be given prenatal care that day, or avoids prenatal care in order to stay in school.

At another city in which a State supported, State health department partially funded project exists, there was worked out with the local private hospital coordination of time so that no classes had to be missed in order to obtain prenatal care. In the State of Connecticut the State health department program is assisted with a modest amount of funds through Maternal and Child Health Service—DHEW—to stimulate, but only partially support, 10 new programs in the State over the past 7 years. I believe that the Connecticut experience of a State-stimulated program is one example of the effectiveness of the kind of approach this bill takes.

I would like to conclude by saying that if I understand the administration correctly they state that the bricks are already in place.

I would counter that the bricks are sometimes in place, but they are often lying scattered about. What is needed is the mortar to fill in the cracks and to mold the bricks into a strong effective structure.

I believe that S. 2538 helps to do this and I thank you for the opportunity to present these views.

Senator **Kennedy**. Just before leaving, what do your statistics and studies show that support this kind of approach?

Can you summarize it briefly?

Dr. **Jekel**. The statistics in terms of the benefits achieved?

Senator **Kennedy**. Yes.

Dr. **Jekel**. Without the comparison sample of young women who did not have the special services, about one-quarter eventually graduated from high school.

In the two groups that were served by this program, 2 years later, 60 percent were either still in school or had already graduated.

It seems probable that at least 50 percent graduated and many were able to continue their education for a longer period of time.

Senator **Kennedy**. Probably the dropout rate in terms of those high schools is quite significant; is it not?

Dr. **Jekel**. That is right.

Senator **Schweiker**. You mentioned stigma about dropouts earlier in your remarks. Obviously a relationship exists there.

What can we do to overcome the stigma involved in this situation, and does that not have a very deleterious effect on the dropout rate?

I do not think we have heard much testimony this morning how we overcome the stigma problem, because it seems to me the stigma problem precipitates dropouts and dropping out precipitates some other things. Maybe it is a question of what comes first, the chicken or the egg.

What is your observation; what advice can you give this committee on how to overcome the stigma problem?

I would assume it would have something to do with dropout rate, but I do not know.

Dr. JEKEL. I believe in many cases more important than the dropout rate is the fact that there is a child to care for, and there are inadequate day care facilities to enable the young mother herself to go back and continue the schooling.

So I think the stigma is real and it is important to deal with.

But there are very tangible problems that she faces that are much more real and much more easy to deal with.

[The prepared statement of Dr. Jekel with exhibits follows:]

Yale University New Haven, Connecticut 06510

SCHOOL OF MEDICINE
Department of Epidemiology
and Public Health
60 College Street

October 30, 1975

Senator Edward M. Kennedy
Senate Subcommittee on Health
Senate Office Building
Washington, D.C. 20510

Dear Senator Kennedy,

My name is James F. Jekel; I am Associate Professor of Public Health at Yale Medical School. My major research interest for the past 8 years has been the problems of, and programs for, school age mothers and their children, and I am the author of several scholarly papers and monographs on this subject. I am also currently Treasurer of the National Alliance Concerned with School Age Parents, a membership organization of involved in, or interested in, providing services to a neglected portion of our adolescent population. I would like to testify in favor of the objectives and general approach of the "Adolescent Mother, Infant and Child Act of 1975," (S.2538). I do, however, have some suggestions regarding how to make the bill even stronger.

First, I support your concern for this neglected population group, whose needs have been clearly documented by many persons and groups, including our own research group (Exhibits A & B). This neglect is sometimes oversight, but in many cases it is deliberate exclusion and neglect, and any effective legislation should take this into account by stimulating laws, services, and attitude changes where communities and States are less than eager to help this group back into the mainstream of American life educationally, medically, and socially. I believe that the State level approach of your bill offers the best potential to do this, particularly if it is coordinated with requirements under the Education and Public Health Service Acts to insure inclusion of adolescent families into existing programs with Federal support.

A bill aimed at the State level has a number of strengths. The States are in the best position to coordinate existing state-wide educational, social service, and health programs. They are also able to identify communities which are not providing services to adolescent parents and families and to stimulate such programs. A third reason that States are an appropriate recipient for a grant program of this sort is that it is unlikely, and probably not desirable, that the basic resources for adolescent parent programs will come from the Federal government directly in the form of categorical grant supports. The Federal government has already stimulated educational, social, and health programs for special groups, and what is presently needed is the assurance that these support moneys will be used for the target population

Senator Edward M. Kennedy
page 2

concerned here. I can personally testify to the effectiveness over a decade of the Connecticut State Government's efforts to stimulate and support programs for adolescent parents (Exhibit C). Further information on this program, which may be a good model for this bill, may be obtained from Mrs. Mary R. Langton at the Connecticut State Department of Health, 79 Elm Street, Hartford, Conn.

There are also some weaknesses of a State level support program: what about States that are weak or uninterested in such programs? Does the bill encourage their participation sufficiently? Such states may well be the ones most in need of such assistance and least likely to take advantage of this bill. Perhaps some added incentives could be given to States most deficient in this area. Another weakness of State level programming is the failure of the so-called "trickle down theory," where the benefits of the moneys given to States do not necessarily "trickle down" to the communities in that State. This perhaps could be prevented by specifying separate allocations for state planning and coordination, on the one hand, and for actual support of local services on the other.

In my reading of the early draft of the bill, one deficiency is the lack of a clear emphasis on follow-through with long term services. Our own studies have shown that it is not enough to provide "crisis intervention," because these young women continue to be at risk for subsequent pregnancies, many of which are 1) unwanted (as shown in some recent data we are getting - few of the first, but many of the subsequent, pregnancies end by induced abortion), and 2) those which are brought to term are at far greater risk medically than the initial pregnancies (Exhibit D). In our studies, the variable best correlated with avoiding subsequent pregnancies, at least over the first year to two years, is continuing in school rather than the mere acceptance of family planning (Exhibits E and F). To enable these young mothers to remain in school, day care services are needed at the schools or at least conveniently located in the community. Therefore, the question of planning a family is a more complex matter than just providing contraception, and the prevention of pregnancies is unlikely to be successful appart from a long term effort to keep the young mothers in an educational experience.

Many people talk about the importance of including the fathers in the programs. Whereas I do not think they should be categorically excluded from programs (and your bill does not), we have some data (as yet unpublished) that shows relatively few of these young mothers eventually marry the putative fathers, and that those adolescents who marry early tend to have more children than those who do not, and their marriages are unstable. It is my judgment that we are not yet ready to encourage the inclusion of fathers in most phases of specific programs for the mothers. Another reference on this subject is Ewer, P. and J.O. Gibbs, "Relationship with Putative Father and Use of Contraception in a Population of Black Ghetto Adolescent Mothers," Pub. Health Reports 90(5), 417-423, October, 1975.

Another concern that I have is that the research base upon which to recommend programs is far too weak to be certain about many of the items raised by this bill. The local and State workers in this field are crying out for more reliable knowledge in this area. As one often consulted with requests for specific information, I am acutely aware of the deficiency of our knowledge in this field. Yet I see nothing in the draft of the bill that would help to further the knowledge base in the field or even to give careful evaluation to what is being done in this area or what might be done as the result of the bill. There are many areas where research is badly needed. Although programs to date have shown short term benefits, such as keeping young mothers in school and helping them to avoid rapid subsequent pregnancies, no one knows with certainty that these benefits can be maintained for a longer time by means of long term follow through. Much work is needed on how best to improve the ability of sexually active adolescents to prevent unwanted pregnancies. We do not have firm answers as to whether it is better to keep young mothers in regular school or create special schools for them. We do not know the best way to teach parenting skills. There is no adequate nationwide monitoring system to determine how many of the eligible women and children are being served by what kinds of services. I believe that one must advance services and the knowledge base of a field together.

I am also concerned about what agency should administer this bill. Since the need of the target population is for comprehensive, interdisciplinary services, I cannot recommend that any existing categorical agency, whether it be health, education, or social service, administer the grant program of this bill. Instead, I would recommend that an interdisciplinary group, agency, or advisory council be the administering agency. Even if you do ultimately approve of a categorical agency, such as the one indicated in your bill, I would recommend an interdisciplinary body, such as the existing Federal Interagency Task Force on School Age Parents, be established to review the State Plans.

I believe that this bill is important, and I would like to offer my appreciation for your sponsorship of this legislation.

Sincerely yours,

James F. Jekel

James F. Jekel, M.D.
Associate Professor of Public Health

JFJ:fw

EXHIBIT A

Reprinted from AMERICAN JOURNAL OF PUBLIC HEALTH, Vol. 60, No. 12, December, 1970
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Attention is directed to an apparently high-risk of attempted or threatened suicide in a cohort of young women who were pregnant before age 18. Factors related to suicide attempts are discussed and stress is placed on the need for preventive action, including early detection and intensive treatment of long duration for suicide-prone girls and for those who threaten or attempt suicide.

SUICIDE ATTEMPTS IN A POPULATION PREGNANT AS TEEN-AGERS

Ira W. Gabrielson, M.D., F.A.P.H.A.; Lorraine V. Klerman, Dr.P.H., F.A.P.H.A.; John B. Currie, Ph.D.; Natalie C. Tyler, R.N.; and James F. Jekel, M.D., M.P.H.

PREGNANCY, childbearing, and motherhood are normal biological events rather than disease processes, but even in the mature married woman they disturb the usual pattern of social life. For the teen-age girl, particularly if unmarried, pregnancy and the events which follow are especially likely to cause difficulty for the individual, those immediately associated with her, and society.

Other authors[1-3] have reviewed some of the problems associated with teen-age pregnancies, such as disrupted education, welfare dependency, and increased fertility. A review of the medical records of 105 pregnant females 17 years of age or younger admitted to the Yale-New Haven Hospital for delivery during 1959 and 1960 suggested an additional potential difficulty —the possibility of suicide—threatened, attempted, or actually committed. This study revealed that 14 of the young mothers were known to have made subsequently one or more self-destructive attempts or threats serious enough to require care or to be reported to a physician at the hospital.

The study population received its obstetrical care in the period before the emphasis on programs for teen-age mothers. Some were patients of private physicians, but the majority were seen by obstetrical residents, medical students and staff physicians in the general obstetrical clinic.[4] As a group they were offered no special social services, although in individual cases the need was so obvious that a social worker was assigned. They were excluded from school when their condition became apparent and limited educational alternatives were provided.[5]

Today in New Haven, and in many other cities throughout the United States, such girls are being offered programs that include unified medical care, augmented social services, and special educational provisions. It is hoped these programs will make a significant difference in the life of these young mothers and their children. Some reports are already indicating lower rates of medical complications among mothers and infants[6] and decreases in early school terminations.[1] Studies now under way may show that the attention being

Table 1—Selected characteristics of patients who made suicide attempts or threats

No.	Age at first 1959-1960 delivery	Race	Religion	Marital status at registration	At attempt				Agent(s)	Other significant problems or diagnoses
					Age	Marital status	Completed pregnancies	Months since last delivery		
1	17	Black	Protestant	Single	20	Single	1	45	Wrist laceration	Two previous suicide attempts; termed "ambulatory psychotic" by psychiatrist — depressed, disoriented; pelvic inflammatory disease; much lung disease; lobectomy (1964)
2	15	Black	Catholic	Single	17	Single	2	20	Ammonia	Patient claimed she drank ammonia; examination was normal; returned to girls reformatory
3	15	Black	Protestant	Single	22	Separated	3	60	15 antihistamine tablets	Depressive reaction after marital separation
4	16	Black	Protestant	Single	23	Married	7	7	Sleeping pills	Pelvic inflammatory disease treated two days earlier
5	16	Black	Protestant	Single	17	Single	1	7-mo pregnant (2nd pregnancy)	12 anacin tablets	
6	16	Black	Protestant	Single	18	Married	1	20	Attempted to slash self with razor and to set clothes on fire	Hospitalized in state mental hospital (1961); marital quarreling; pelvic inflammatory disease

Table 1—Continued

No.	Age at first 1959-1960 delivery	Race	Religion	Marital status at registration	At attempt				Agent(s)	Other significant problems or diagnoses
					Age	Marital status	Completed pregnancies	Months since last delivery		
7	13	Black	Catholic	Single	17	Married	3	31	Hand laceration	Put hand through window on Christmas Day; marital discord; blunt affect
8	17	White	Catholic	Married	18	Married	1	3	10-15 aspirin tablets	Overdose of sleeping pills at age 14; took aspirin on 18th birthday after argument with husband
9	17	White	Catholic	Married	24	Separated	2	69	Wi[illegible] through window	Treated in psychiatric clinic for severe psychoneurosis related to broken marriage; pelvic inflammatory disease
10	17	Black	Protestant	Single	18	Married	2	4	Jumped 3 stories	Pelvic inflammatory disease
11	16	White	Catholic	Single	22	Separated	3	18	Tranquilizer	Treated in psychiatric clinic; husband and boyfriend narcotics addicts
12	17	White	Catholic	Married	25	Married	3	33	Laceration of wrists	Depressed; disoriented
13	17	White	Catholic	Married	17	Married	1	1	Threatened suicide and child abuse	Acute anxiety one month postpartum; infant found bloody
14	17	White	Catholic	Divorced	18	Divorced	1	5-mo pregnant (2nd pregnancy)	Fearful of suicide and infanticide	Previous suicide attempt with aspirin; hospitalized in state mental hospital for "nervous breakdown" (1958); seen frequently for anxiety

paid to the psychological aspects of pregnancy and the early child rearing period result in mothers better able to cope with the physical and emotional problems of their environment. If the programs are able to accomplish these goals, a marked reduction in the number of self-destructive attempts or threats would be expected. This paper hopes to assist those responsible for programs for pregnant teen-agers by alerting them to the need for listening for possible hints of future irrational acts and by stressing the urgency of long-term follow-up of this population. Research personnel may wish to use rate of suicide attempts as an additional measure of the success of special programs.

Study Method

The information about self-destructive attempts or threats was found in the course of a study concerned with intervals between conceptions in a teen-age population. The review of records was made at the Yale-New Haven Hospital in 1968, eight or nine years after the "index delivery" of 1959 or 1960. The group of 105 patients retained for study met the following three criteria: they were 17 years of age or younger and residents of New Haven at the time of the index delivery, and there was follow-up information available in the hospital chart for a period of at least two years thereafter. (Four exceptions were made to the latter criterion, where the records showed an additional pregnancy within a period of less than two years, although the follow-up stopped short of two years.) Such a review, limited to only one of the two area hospitals, and without a search of private physicians' records, certainly underestimates the number of suicide attempts and threats.

For the purpose of the hospital chart review, the following were classified as self-destructive acts: any self-mutilation such as wrist-slashing, jumping from buildings, the ingestion of any substance which the patient might have thought to be harmful, and the ingestion in obviously excessive amounts of any medication. In addition, two patients whose records showed a threat or fear of suicide were included in this group, hereafter referred to as the "suicide attempt" group.

The first section of this paper will describe the 14 patients in the "suicide attempt" group and the attempts themselves. In the following section, the entire population of 105 meeting the previously described criteria for inclusion in the study will be analyzed to determine which characteristics are associated with a higher risk of suicide attempt or threat. Finally, the rate of suicide attempts in this obstetrical population will be compared with the rates reported by others.

Characteristics of the "Suicide Attempt" Group

Selected characteristics of the 14 patients who made suicide attempts or threats are shown in Table 1. They ranged in ages from 13 to 17 at the time of their first 1959-1960 delivery. Eight were black, six white, and eight were Catholic, six Protestant. At the time of registration for care, nine were single and five had been married. The latter were all 17 and white Catholics. Only one patient had experienced a pregnancy prior to the one in 1959-1960.

By the time they made the suicide attempt the patients ranged in age from 17 to 25. Eight were 17 or 18, one was 20, and five were 22 to 25. Eleven of the patients had been married by the time of the attempt, but four of these were already separated or divorced; three were still single.

In two cases the patient was pregnant with a second pregnancy at the time of the suicide attempt. For the remaining cases, the median number of months which had elapsed between the last delivery and the attempt was 20, with a range of one month to 60 months. Four attempts were made in the first postpartum year and three of these were within four months of delivery. The median number of completed pregnancies at the time of the attempt was two.*

Varied methods of suicide attempts were recorded. Ingestion was the most common. Five women had swallowed excess amounts of tranquilizers, sleeping pills, aspirin, or similar substances, and one claimed to have drunk ammonia. Four were treated for lacerated hands or wrists. One patient jumped from a third story window, and another tried to cut herself with a razor and threatened to set fire to her clothing. In two cases, only a threat or fear of suicide was noted. In both there was also actual child abuse by the young mother or apprehension concerning infanticide.

Record review suggested that suicide attempts were often found in conjunction with the following:

Emotional Illness—Chronic psychiatric problems as well as acute episodes of depression or anxiety were noted in eight cases. Patients were described by terms such as ambulatory psychotic, depressed, disoriented, chronic anxiety, sociopath, and severe psychoneurosis. Patient No. 6 had an acute self-destructive psychotic episode requiring hospitalization. Patient No. 13 had "acute anxiety one month postpartum." Three patients—Nos. 1, 8, and 14—had histories of previous suicide attempts. Patient No. 7 put her hand through a window on Christmas Day and No. 8 ingested aspirin on her 18th birthday. These latter two cases suggest the importance of situational stresses.

Marital Discord—Patient No. 3 ingested antihistamine pills "after marital separation." Patient No. 9 was seen repeatedly for psychoneurotic manifestations related to a broken marriage before being treated for a wrist laceration. Her husband "lives across the street with other women." Patients 6, 7, and 8 also had reported quarreling with their husbands.

Associated Physical Illness—Five of the patients were seen for gonorrhea or pelvic inflammatory disease. Occasionally suicidal attempts occurred in close temporal relationship to treatment for one of these conditions. One patient suffered from chronic suppurative lung disease.

Characteristics Associated with Risk of Suicide Attempt

Table 2 analyzes the frequency of suicide attempts in the study population by selected characteristics.

Age—The total study population ranged in age from 12 to 17 at the time of their first 1959-1960 delivery. Age at delivery did not appear to influence the risk of subsequent suicide attempt.

Race—There was no appreciable difference in the risk of suicide attempt between the white and the black mothers.

Religion—Twenty per cent of the Catholic patients were in the suicide attempt group as opposed to only 9 per cent of the Protestant patients. This excess risk of attempts among the Catholic mothers was found within each racial group, although the numbers were not large.

Marital Status — Subsequent suicide attempts were found in 22 per cent of those mothers who were single at registration but in only 7 per cent of those who were married at that time. One of the two who were separated or divorced at the index delivery made a suicide attempt.

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* In Connecticut it was illegal for physicians to prescribe contraception or counsel its use until June, 1965.[7]

When marital status was controlled for religion, there was a suggestion of independent association between each variable and suicide attempts. Being both Catholic and single was associated with approximately twice the risk found

Table 2—Frequency of suicide attempts by selected characteristics

Item	Total sample	Suicide attempts No.	Suicide attempts %
Total	105	14	13.3
Age at delivery			
15 and under	22	3	13.6
16 and 17	83	11	13.3
Race			
Black	58	8	13.8
White	47	6	12.8
Religion			
Catholic	40	8	20.0
Protestant	65	6	9.2
Race and religion			
Black:			
Catholic	4	2	50.0
Protestant	54	6	11.1
White:			
Catholic	36	6	16.7
Protestant	11	0	0.0
Marital status at registration			
Married	62	4	6.5
Single	41	9	22.0
Separated or divorced	2	1	50.0
Marital status and religion			
Single:			
Catholic	8	3	37.5
Protestant	33	6	18.2
Married:			
Catholic	30	4	13.3
Protestant	32	0	0.0
Separated or divorced:			
Catholic	2	1	50.0
Protestant	0	0	0.0
Residence at index delivery			
New Haven:			
Poverty areas	64	7	10.9
Nonpoverty areas	41	7	17.1
Residence, race and religion			
(a) New Haven, poverty area			
Black:			
Catholic	4	2	50.0
Protestant	37	3	8.1
White:			
Catholic	19	2	10.5
Protestant	4	0	0.0
(b) New Haven, nonpoverty area			
Black:			
Catholic	0	0	0.0
Protestant	17	3	17.6
White:			
Catholic	17	4	23.5
Protestant	7	0	0.0
Birthplace			
Connecticut	62	9	14.5
Other northern states	7	0	0.0
Southern states	34	5	14.7
Non-U. S. or unknown	2	0	0.0
Source of care			
None	8	1	12.5
Clinic	79	10	12.7
Private	18	3	16.7
Outcome of delivery			
Full-term live birth	94	14	14.9
Premature live birth	9	0	0.0
Stillbirth	2	0	0.0
Parity			
No previous pregnancies	91	13	14.3
One or more previous pregnancies	14	1	7.1
Number of subsequent pregnancies (To date of last follow-up)			
None	8	2	25.0
1–2	45	7	15.6
3 or more	52	5	9.6
Complications of pregnancy			
No complications of pregnancy	29	0	0.0
Complication of pregnancy recorded	76	14	18.4
Venereal disease			
Reported	24	5	20.8
None reported	81	9	11.1

among those who were either Catholic or single. No suicide attempts were found among the married Protestants.

Residence—The proportion of suicide attempts among mothers whose residence at the time of the index delivery was a nonpoverty area of New Haven (17%) was higher than the proportion of suicide attempts among mothers from poverty areas (11%).* Residence does not appear to alter the relationships found previously, i.e., there was no difference in risk between racial groups within each of the two residential areas, but Catholics showed higher rates than Protestants within each.

Birthplace—There was no clear association between any particular area of birth and a higher or lower risk of subsequent suicide attempt.

Source of Care—The risk of suicide attempt was slightly higher among patients receiving prenatal care from private physicians than among those cared for in the hospital clinics, or receiving no prenatal care at all. The numbers are too small to reach definite conclusions, but the trend is consistent with the finding of higher risk in pregnant girls from nonpoverty areas.

Outcome of Index Delivery—All of the suicide attempts were among mothers who delivered full-term live babies. No attempts were recorded among those delivering stillborn or premature infants.

Parity—Of the total population of 105, 91 were nulliparous at the index pregnancy and 14 were having a second or third child. There was no evidence that women of higher parity were at greater risk for subsequent suicide attempt.

Number of Subsequent Pregnancies—There was a higher risk of suicide attempt among those women who had no more than two subsequent pregnancies during the study follow-up period (17%) as compared to those with three or more subsequent children (10%). Only eight of the total population had no pregnancy subsequent to the index pregnancy; of these, two attempted suicide.

Complications of Pregnancy—Seventy-two per cent of the study population had complications recorded in the hospital chart with one or more of their pregnancies. These complications included such things as anemia, toxemia, infection, and hemorrhage. (Venereal disease was considered separately.) All 14 suicide attempts were among those who had complications recorded. None of the patients without complications were known to have made suicide attempts.

Venereal Disease—Almost one-quarter of the study population had a diagnosis of venereal disease recorded in the chart at some time. Those with this diagnosis had approximately twice the risk of subsequent suicide attempt (21% to 11%).

It is not possible to demonstrate statistical significance for the differences related to the above characteristics, primarily because of the small numbers involved. Chi-square tests show that only one of the above comparisons is significant at the conventional 5 per cent probability level. Consequently, the differences observed here are best regarded as suggestive leads. Further research may clarify the importance of the association of these factors with the risk of suicide attempts.

Relation to Other Studies of Attempted Suicide

Before any conclusions can be drawn about the possible relationship between suicide attempts or threats and teen-age pregnancy, it is necessary to determine whether the frequency of attempts is higher in this sample than in the general population or in other adolescent groups. Although the incidence of suicide carried out to completion is relatively well known, at least for those cases reported to the medical examiner, few attempts have been made to develop directly an incidence rate of attempted suicide. Moreover, since previous studies have shown that major differences exist between individuals who make suicide attempts and those who actually commit suicide,[8,9] extreme caution must be exercised in using suicide rates in connection with studies of attempts. An alternative method of deriving comparative figures is by using studies which have developed a ratio between attempted and completed suicide.

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* Defined as the lowest quartile nationally of the "Health Opportunity Index," developed by the Children's Bureau, based on the 1960 Census.

For the year 1957, Shneidman and Farberow[9] collected information on completed suicides from the Los Angeles coroner's office; and on attempts from the records of the Los Angeles County General Hospital and the [illegible] Los Angeles municipal emergency hospitals, and from a questionnaire sent to all private physicians and osteopaths in the Los Angeles area. The hospitals reported 2,019 attempts and the doctors an additional 3,887 for a total of 5,906. Since there were 768 completed suicides in the same period, the over-all ratio between attempts and completed suicides was 7.69:1.*

Unfortunately, of those cases reported by doctors, data on only 633 were complete enough to analyze by demographic variables such as sex and age. Based on these incomplete data, the ratio of attempted to completed suicides for females of all ages was almost identical with the over-all rate, 8:1; for males it was only 1.5 to 1. For both sexes at ages 10 to 19, the ratio of attempted to completed suicides was considerably higher: about 18 to 1. The difference between the sexes in this age group is especially striking: for males the ratio was about 5 or 6 to 1, but for females it was between 69 and 78 to 1.† For all ages combined, barbiturates and poisoning accounted for 52 per cent of the female suicides and 63 per cent of the attempts (for males the comparable percentages were 17% and 42%); no breakdown of method by age is given.

Working in New York City where the reporting of accidental and intentional poisoning is mandatory under the city health code, Jacobziner[10] developed a ratio of attempted to completed suicides based on reports of ingestion in the adolescent population. For the years 1960-1961, he found 568 attempted and 5 completed suicides by ingestion of chemical agents in the under-20 age group, yielding a ratio of over 100 attempts to 1 completed suicide.

Comparing the information from Jacobziner about attempts in 1960-1961 with his classification by sex and method of completed suicide in 1961-1962, the ratios for males and females were each found to be over 100 to 1. On the hypothesis that ingestion represents 50 per cent of the attempts among female teenagers (as was found in our sample), the ratio for all methods would be about 50 to 1.

The discrepancy between these two sets of ratios (based on Shneidman-Farberow and Jacobziner) can be partially explained by differences in the study populations and research designs. The Jacobziner study depended upon reporting, which is less complete in attempted than in committed suicides. Shneidman and Farberow, on the other hand, sought out the information, although their success with returns from doctors was not outstanding. The smaller size of the sample in the Jacobziner study also might result in greater variability. Sampling fluctuations and the rather crude methods used to produce comparable figures also may have contributed to discrepancies. Unfortunately neither study provides the data necessary for a more accurate estimate, since Jacobziner does not deal with suicide attempts other than by chemical ingestion, and Shneidman and Farberow do not classify their population by both age and sex.

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* This figure is quite close to the less than 6 to 1 figure quoted by Stengel and Cook which they state is based on data from the police reports of Los Angeles and Detroit.

† These ratios were extrapolated from Shneidman and Farberow's tables in which entries are rounded to whole percentage points. The ratios which can be deduced from these data have the following ranges: for both sexes 18:1 to 19:1; for males 5:1 to 6:1; for females 69:1 to 78:1.

In the study reported in this paper, 105 patients were followed for a total of 7,084 patient-months, or 590.3 patient-years. Thus there are about 590 "women years" of risk at average ages of 16 to 22 years. On the basis of the 12 mothers who made actual suicide attempts, this is a yearly rate of

$$\frac{12 \times 100}{590.3} = 2.03\%, \text{ or } 2{,}030 \text{ attempts per } 100{,}000 \text{ per year.}$$

In order to determine whether this rate of suicide attempts was larger than that expected among young females in an urban population, the rates based upon the Shneidman-Farberow and Jacobziner studies were applied to suicide rates from Cook County, Illinois, in 1959-1963[11] where the rate was 2.5 per 100,000 per year among females in the 15 to 24 age group. Applying this suicide rate to the estimated ratios of suicide attempts to suicides, one would expect between 173 and 195 suicide attempts per 100,000 per year using the ratios based upon Shneidman and Farberow's data, and 125 per 100,000 per year using the ratio based upon Jacobziner. The rate of suicide attempts in the study sample is roughly 10 times larger than the largest of these estimates.

Discussion

At least two alternative explanations can be advanced to explain the major finding of this study, that the rate of attempted suicide among teen-age mothers is in excess of that which would be expected in the general urban adolescent population. The first explanation is that the stresses of pregnancy and child-rearing in some young girls are so enormous that they react by attempting suicide. An equally interesting possibility, however, is that the suicide attempt is not a direct result of the pregnancy, but that both the pregnancy and the suicide attempt stem from a common process. Both these events may represent disturbed behavior by adolescent girls. Girls who become pregnant in their teens may be demanding attention or trying to punish or inflict pain on their parents or other significant persons in their environment. Similarly, the suicidal act or threat may be a way of striking out or seeking revenge.

A study of suicide attempts in pregnant women by Whitlock and Edwards[12] seems to support this latter alternative. They noted that the "majority of suicidal attempts by the pregnant women were impulsive, often precipitated by violent interpersonal disputes which did not necessarily relate to the pregnancy. The women showed marked instability of personality and many had experienced life-long interpersonal and sexual difficulties. A follow-up survey of two-thirds of the patients showed that 37 per cent of the women continued to show major psychiatric disorders."

Further research would be necessary to determine whether either of the alternative explanations offered would account for the increased rate of suicide attempts or threats in this population.

Risk of Suicide Attempt

The data reported earlier in this article on the association between specific characteristics and suicide attempts suggest that a higher-risk group might be defined within a population of teen-age mothers. The factors associated with an increased risk of suicide attempt within New Haven were: being Catholic, not having married, living in a nonpoverty area, experiencing a complication of pregnancy, and having a venereal disease at some time. The religion and marital status variables are especially notable since they run contrary to some studies of committed suicides. Since Durkheim's[13] classic study, it has been assumed that committed suicides were lower among Catholics than other religious groups. Recently, this conclusion has been questioned.[14] Relative to marital status, Seiden[15] recently pointed out that although suicide is less frequent among married persons, this is not true in the young married population. Under the age of 24, and especially under 20, the death rates from suicide are higher among married men and women than among single men and women. Seiden suggests that "perhaps youngsters who marry in their teens are seeking to escape from unsatisfactory home environments, or perhaps early marriage, *per se*, introduces stresses which lead to suicide."

The fact that women who were single, Catholic, and not living at a poverty level were more likely to attempt or threaten suicide than other women who also had borne children in their teens would seem to suggest that the acceptability of the pregnancy in the women's social group might be a contributing factor. Certainly in almost all groups, regardless of age, it is more acceptable to be pregnant if one is married than if one is not. Catholic religious training places strong proscriptions on sexual activity outside of marriage.* Finally, although teen-age pregnancies undoubtedly occur in large numbers in the middle and upper socioeconomic groups, in the public mind pregnancy at a young age is associated with illegitimacy and with the lower socioeconomic class. Therefore, when a teenage girl who is single and/or Catholic and/or living above the poverty level finds herself pregnant, she may be more aware of the disapproval of her social group than she would be if she were a married and/or non-Catholic and/or a poverty-level teen-ager. This awareness of deviance from the norms of the group may make a suicide attempt or threat more likely.

Several of the findings indicate that those who attempt suicide represent a disturbed population: the high rate of venereal disease—which is often associated with promiscuity—and the frequent histories of emotional illness including psychiatric symptomatology, of previous suicide attempts, and of marital discord. Moreover, the high rate of pregnancy complications among those who threatened or attempted suicide, and the presence of physical illness in conjunction with several of the attempts suggest that physical conditions should not be overlooked. Venereal disease may be viewed as both an emotional and a physical factor.

The Significance of the Suicide Attempt

Given what appears to be an excess number of suicide attempts among women who become pregnant in their teens, a question can be raised about the importance of this act. Is committed suicide a real possibility in this population? If it is not, is the suicidal behavior important in itself?

Several studies have shown a high rate of completed suicide among those who previously attempted or threatened suicide, i.e., suicide attempters are a high-risk group for completed suicide.[17,18] In addition, another study undertaken by the authors of this paper uncovered two apparent suicides in an obstetrical clinic population which delivered from 1963 through 1965. One took place two years after delivery but while the girl was pregnant with her third child; the other, three years postpartum. Pugh's[19] analysis of mental disease related to childbearing is also relevant to this question. Considering first admissions to Massachusetts mental hospitals, he found a large excess of admissions with psychosis during the first three months postpartum for childbearing women as compared to nonchildbearing women. The risk of hospitalization was highest at the extremes of age, including the 15 to 19 age group. In a personal communication, Pugh noted that 2 of the 75 women in this childbearing group later committed suicide, eight months and one and a half years postpartum respectively. These data suggest that although suicide carried to completion during pregnancy may be uncommon,* suicide is a significant risk in the postpartum period, particularly among those with a history of suicide attempts or of mental illness.

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* Kinsey[16] studied the association between religion and feelings of regret about premarital coitus among women. Although the differences were greater between the more or less devout within the religious groups, 35 per cent of the devout Catholics as compared to 23 per cent of the devout Prostestant women regretted the experience.

Even if completed suicide were not a significant risk, there would be important reasons to pay attention to the suicide attempt. First, physical harm to the woman or her infant is a frequent sequel of such attempts. Second, the attempt conveys a message to the environment. Rubenstein, et al.,[20] have suggested that a suicide attempt should be considered "not as an effort to die but, rather, as a communication to others in an effort to improve one's life." The message should not be ignored by the helping professions, even though it was originally directed to people important in the pregnant patient's life. The young woman who attempts or threatens suicide is consciously or unconsciously signaling to the world that she needs help. If this alarm is not heeded, there may be dire consequences for the individual and her child.

Siegal and Friedman[21] have commented on the impact of suicide threats: "The threat of suicide forces people to marry, prevents marriage dissolution, coerces companionship between persons despite their mutual infidelity, prevents marriages, forces parents to acquiesce in their offspring's vicious habits, precludes institutionalization, is rewarded by escape from military service, is used to obtain favored treatment over siblings, is employed as a device to avoid military induction, etc." Stengel and Cook[8] criticize the negative connotations of this list and point instead to the "frequency with which the suicidal attempt was found to have been the only effective alarm signal to mobilize long overdue medical and social help." They feel that suicide attempts consciously or unconsciously have important social effects, i.e., they modify the human environment.

Prevention of Suicide Attempts

Finally, what can be done to prevent suicide attempts or to help those who have made them? Unfortunately society has made little progress toward solving the problem of the disturbed adolescent. The education of parents and the creation of a healthy emotional climate would appear to be the first line of prevention. In addition, some program suggestions can be made. The tendency of physicians to treat a suicidal remark as a meaningless gesture should be modified. It may be only a gesture in the sense that suicide has a low probability of occurring, but it is not meaningless. It is an important sign and should be treated vigorously.

The multidisciplinary programs for

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* Actually such suicides may not really be uncommon but merely underreported. Newspaper accounts of suicide pacts between unwed adolescent couples often cite pregnancy as a factor.

teen-age mothers being developed across the country, with their concentration on individualized care for medical, educational, and social problems, should help detect patients at risk for suicidal acts, as well as provide the help which may make such a dramatic "alarm signal" unnecessary. It may be necessary, however, to mobilize additional psychiatric resources in order to provide individual and/or group therapy, not only for those who have already made a threat or attempt, but also for the high-risk group. Regardless of the reason for the suicide threat or attempt, the findings clearly indicate the need for increased concern with the psychological and emotional needs of the pregnant adolescent both during her pregnancy and for several years after delivery. They also suggest that the rate of suicide attempts may be another variable to study in the evaluation of special programs for this population.

Summary

A review of the records of 105 New Haven residents who were 17 and under when they delivered an infant revealed that 11 had subsequently attempted or threatened suicide. Comparison with other studies indicates that the rate of attempted suicide in this population is higher than would be anticipated. Within the total study population, the risk of attempting suicide was somewhat higher among single girls, Catholics, and those not from poverty areas. Suicide attempts were also associated with pregnancy complications and venereal disease. It is suggested that this excess of suicide attempts may be due to the stress of the pregnancy, or that both the pregnancy and the suicide attempt or threat may be forms of disturbed adolescent behavior.

The dangers of committed suicide or physical harm, and the "signal for help" function of the attempt, strongly suggest the need for preventive measures including early detection and intensive treatment of long duration for both the suicide-prone and those who have threatened or attempted suicide.

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Dr. Gabrielson is Clinical Professor, Division of Maternal and Child Health, University of California at Berkeley. Dr. Klerman is Assistant Professor of Public Health, Dr. Currie is Assistant Professor of Biometry, and Mrs. Tyler is Research Assistant, and Dr. Jekel is Assistant Professor of Public Health, Department of Epidemiology and Public Health, Yale University School of Public Health (60 College Street), New Haven, Conn. 06510

The study upon which this paper is based was supported by grants H-118 and H-231-C 1 and 2, Children's Bureau, DHEW.

This is a revised version of a paper presented before a Joint Session of the Maternal and Child Health, Health Officers, and School Health Sections of the American Public Health Association at the Ninety-Seventh Annual Meeting in Philadelphia, Pa., November 10, 1969.

EXHIBIT B

APPENDIX

Presented at the 24th Annual Convention of the American Scientific Affiliation, August 18-21, 1969. Submitted to the Journal of the American Scientific Affiliation.

POVERTY AND THE ADOLESCENT PARENT

James F. Jekel, M.D.,M.P.H.
Assistant Professor of Public Health
Yale Medical School
New Haven, Connecticut

Poverty in the United States today is such a gigantic and complex phenomenon that, like the elephant being examined by the blind men, it cannot be fully apprehended from any one perspective. The majority of Americans, moreover, have an even greater sensory limitation with regard to poverty in this country than did the elephant-examiners with regard to their elephant! Most middle class Americans are sufficiently distant from the experience of poverty that they do not view the scenes of poverty, and cannot smell the smells of poverty, hear the sounds of poverty, or sense the pain of it. Michael Harrington was well aware of this when he wrote his classic book on poverty here entitled THE OTHER AMERICA, which is credited with a major role in sparking the War on Poverty.

We could study the problem of poverty by the examination of general statistics on the subject, and they are indeed sobering. For example, in 1966, 20% of our families earned only 5.4% of the national income, whereas another 20% of our families received 40.7% of the total, roughly eight times as much. (1) In 1966 almost one quarter (23.2%) of the families and unrelated individuals in this country had incomes of less than $3,000. (2) However, the statistics alone cannot show either the cause or the impact of poverty on human beings, and so I have chosen to focus upon one population group, whose problems are closely associated with poverty: adolescent parents.

CHARACTERISTICS OF TEENAGE PREGNANCY

The Magnitude of Teenage Pregnancy. Some persons fear that teenage pregnancy, particularly that which is illegitimate, is on the rise. Their fears are justified or not, depending upon the indicators which are chosen. Thus teenage pregnancy has shown a constant increase for decades in terms of actual numbers, but in recent years this has been due entirely to an increase in the number of women in the teenage category, and not to any increase in the birth rates for this age group. As a matter of fact, the rates per 1000 teenage women has actually fallen over the past decade. Between 1955 and 1966 the birth rates to mothers under 15 years of age was constant at 0.9 births per year per 1000 women in that age group, during the same interval, the birth rate to women between the ages of 15 and 19 actually fell from 90.5 to 70.6 per 1000 women per year. (3) In all, approximately 14% of all births in the United States are to teenage women. (4)

Therefore, although the aboslute number of births to teenagers is increasing and will continue to do so as the population increases, the risk of pregnancy to a given teenage woman is actually decreasing slightly.

Illegitimacy among teenage pregnancies. Any discussion of teenage pregnancy must include a discussion of the role of illegitimacy in the problem, because of the relatively high proportion of teenage births which occur out-of-wedlock. The best overall classification of the population of unwed teenage mothers is that of Herzog, who divides the population into two subgroups. (5) The first, or subgroup A, consists of the approximately one third of the mothers who come from the middle or upper socioeconomic classes, are predominately white, and characteristically do not keep the child unless they marry. They resolve the pregnancy problem in one of three ways: abortion, marriage, or going to another city or a maternity home and putting the baby up for adoption. Approximately 70% of all illegitimate white babies are put up for adoption, and the proportion is even higher among the teenage group. Most of these mothers receive social services, and many receive psychiatric treatment as well.

The remainder of the population, group B, consists of approximately two-thirds of the unwed teenagers and comes from low income groups (although they are not necessarily on public assistance); they are largely nonwhite. Approximately 90% of these mothers keep their babies, in part because there is not a large demand for adoption of nonwhite babies. They seldom seek abortion, perhaps because legal abortions are seldom offered to them, and illegal abortions, if they know where to find them, are frequently too costly. (6) Nevertheless, sometimes this group does seek illegal abortions, with unfortunate results in terms of maternal deaths (see below). Prenatal care, when sought, is obtained late and predominately in public clinics.(8,9) Although their social problems are usually greater than those in the first population group, they are less likely to receive the needed social services, except for the minimal services which may be given to some in connection with their welfare status. (10,11)

The magnitude of teenage illegitimacy. It is difficult to discuss this with confidence because of deficiencies in the data. The definition of an illegitimate birth is not always the same from state to state, and many states neither collect nor report illegitimacy data. It is impossible, therefore, to obtain illegitimacy statistics for the United States as a whole. Moreover, the statistics from the states which do report illegitimacy show a systematic bias, because women from the upper and middle income groups are better able to hide the fact of out-of-wedlock conception by abortion, by marriage, or by going to deliver in a state which does not report illegitimacy.

Because of the limitations of the data, all that can be reported are estimates of the illegitimacy problem. As in the case of all teenage births, we see a steady increase in numbers but a leveling off of the rates of illegitimate births. The estimated number of illegitimate births to teenagers has increased from 91,700 in 1960 to 129,200 in 1965. (12) There has, however, been no change in the rate of illegitimate births per 1000 nonwhite teenage women since 1957, and only a slow increase in the rate of illegitimate births to white teenage women during the same period of time. A third indicator, the proportion of all live births that are illegitimate, does show an increase during the past few years. This, however, results from the fact that the total birth rate for this age group has been falling, and the illegitimate birth rate, by remaining relatively constant, has increased proportionately.

Therefore, within the limitations of our data, there does not appear to be an increasing risk of out-of-wedlock births to teenagers. However, as the numbers of teenage births rise, there is a continuing increase in the need for services to these parents and their children.

Relationship of early pregnancy to income, education, and illegitimacy. As a generalization it may be stated that people from the lower income brackets tend to marry earlier, have children earlier, and have more children in all. (12) For example, in a recent study in New Orleans, Beasley found that although only 26% of the female population of the city was classified as 'poor" by his criteria, this group of women accounted for 56% of the live births, 88% of the "visible" illegitimate births, and 68% of the births to women under 19 years of age. (13) As a matter of fact, 8 out of 10 of the "poor" women in the study had had their first child before the age of 18.

Another generalization which can be made on the basis of existing data is that the younger the mother, the greater is the risk that her child is born out-of-wedlock. (Table 1)

Table 1. Estimated Illegitimacy ratios by age of mother, U.S., 1965.

Mother's Age	Percent of births illegitimate
<15	78.5
15	56.4
16	37.4
17	17.6
18	13.3

Source: U.S. National Center for Health Statistics, Trends in Illegitimacy United States, 1940-1965, Series 21, No. 15, Feb. 1968. p. 36.

Race, Fertility, and Illegitimacy. Race is an independent variable associated with teenage fertility and illegitimacy, but it is a difficult variable to interpret meaningfully. Overall fertility rates for nonwhite women are higher in every age category than for whites, and the percent excess of nonwhite fertility over white fertility is highest in the teenage category, where nonwhites have a 69.3% higher fertility rate.

Overall reported rates of illegitimacy among women 15-19 years of age were roughly 9 times as high for nonwhites as for whites in 1965. (14) This statistic does not, however, account for the considerable bias produced by the greater capacity of the white population to hide this condition. Therefore, the actual rates of out-of-wedlock conceptions between the racial groups may not be as different as this suggests. Moreover, the ratio of nonwhite to white illegitimate first births was only 5.8, whereas the ratio for second and subsequent illegitimate births was as high as 14.7.

This implies that either the whites are more likely to marry before the birth of the second child, or that they are more likely to use contraception, abortion, or to change their life style. This in turn may well be due to the fact that whites are far more likely to receive the needed services around the first pregnancy than are nonwhites. Herzog states:

> ...services are far from sufficient and those we do have are not distributed evenly or efficiently. A disproportionate amount of social services have gone to those unmarried mothers who are above the poverty line, who are white, and who are likely to place their children in adoption. (10)

On the basis of these statistics, some believe that the nonwhite population must consider out-of-wedlock pregnancy acceptable behavior. Actually this is not so, and is contradicted to some extent by the fact that one reason many nonwhites seek out services late or not at all is their desire to conceal pregnancy as long as possible. (8) There is evidence that out-of-wedlock pregnancy is not desired by the poor, but that it is tolerated to a greater extent because of its apparent inevitability.

CAUSATIVE FACTORS IN TEENAGE PREGNANCY

It should be emphasized that a statistical association between poverty and high fertility does not necessarily imply that one causes the other, or if one is causal, the association does not prove which one is cause and which result. One could argue that being poor causes one to marry early, or at least have coitis early. On the other hand, early and frequent children produce financial strains on a young marriage or on a young unwed mother. Moreover, both the poverty and the high fertility could result from other factors, such as discriminatory practices in education and hiring. If a man cannot maintain his self-image or manhood because he is unable to find a job and because he is subjected to discrimination over which he is powerless, siring children may be one of the few available avenues for demonstrating his manhood.

Vincent has reviewed the history of ideas about the causes of out-of-wedlock pregnancy, and he finds that one idea after another has had its period of being in "fashion". (15) For example, prior to 1930, there was emphasis upon "theories pertaining to moral and inborn sources of behavior, and the emphasis on immorality, bad companions, and mental deficience as causes of illegitimacy." During the 1930's there was greater emphasis on environmental sources of behavior, such as broken homes and poverty. During the late 1930's and 1940's there was "interest in the concept of 'culture'," and illegitimacy was considered to be part of a way of life for certain population groups. Since that time there has been greater interest in psychological and psychiatric explanations of behavior, so that out-of-wedlock pregnancy has frequently been viewed as the result of emotional problems, or as a means to try to satisfy unmet emotional needs, such as a loving relationship. There is a common misconception that most illegitimate children are the result of "promiscuous" behavior. While it is true that the children are conceived out-of-wedlock, the relationship which resulted in a child was usually a very meaningful one to the mother, and one which had usually lasted for at least one to two years. (9) It would seem that many or all of these factors may be involved in the etiology of early pregnancies, whether in wedlock or out. Herzog states:

> The factors that so far do not appear to stand up under analysis as the major cause include low intelligence, broken homes, geographical mobility, and psychological or interpersonal disturbances. Any of these factors may be involved in specific instances, but none can be held mainly accountable for the problem. (10)

THE IMPACT OF TEENAGE PREGNANCY

The impact of early pregnancy is felt in many areas, some of which are discussed below:

1. Forcing early marriage. It must be emphasized that all school-age pregnancies are of concern, and not just those which result in out-of-wedlock births. Wallace reports studies which showed that approximately 50% of marriages between two high school students in California involved premarital pregnancy, as did a high proportion of marriages in which the woman was of high school age and the man was older. (4) This and other factors lead to high rates of unstable marriages among teenagers.

2. Unstable marriages. Wallace states: "The highest divorce rate is in the age group married at 15 to 19 years. The divorce rate is 3 to 4 times higher among those married in their teens than among those married at later ages. It is apparent that a high proportion of teenage marriages are unstable and that there is great need for marriage counseling services in communities." (4)

3. High Neonatal Death Rates. Apart from the question of illegitimacy, Stine, et. al. have shown that among Baltimore residents, the younger the mother, the higher the neonatal death rate (Table 2). (16)

Table 2. Neonatal death rates by race and age of mother, Baltimore residents, 1961.

Age of Mother	Neonatal death rates/1000 Live Births		
	White	Non-white	Total
16 yrs.	23.0	42.8	35.8
17-19 yrs.	20.3	33.8	27.5
20 yrs.	16.9	27.4	21.7

The same relationships are found in fetal death rates and prematurity rates.

4. Maternal mortality. Pakter found that in New York City unwed mothers had a higher mortality rate, due primarily to puerperal infection from illegal abortions. (7)

5. Repeat pregnancies. The late teenage period is one of the most fecund periods in a woman's life. Beasley's study in New Orleans showed that the "poor" mothers had an average of nearly 5 children by the time they were 26 years old, despite the fact that 60% of them had not wanted more than three children. (13) More than 90% of the "poor" showed "marked ignorance" about reproductive physiology and family planning, and only 28% had used any form of conception control, compared to 85% of those in his study from the middle and upper income brackets. For the United States as a whole, there are estimated to be almost as many second or higher order repeat illegitimate pregnancies as there are first illegitimate pregnancies. Some studies have found even higher rates of recidivism. For example, in a follow-up study of a cohort of 100 unmarried pregnant teenagers, Sarrel found that over a period of 5 years following the initial out-of-wedlock delivery, they produced 240 more children, or an average of 3.4 children per mother in a space of about 6 years. ([illegible]) Some of these children were born in wedlock and some out.

6. Interruption or cessation of education. Stine et. al. found that in Maryland:

> ...pregnancy is the most frequent single physical condition causing an adolescent to leave school prior to graduation. More than twice as many adolescent females left school with pregnancy as the stated reason than left school for all other physical or medical reasons. (16)

In his New Orleans study Beasley found that those "poor" women who had their first child before the age of 18 "were five times as likely not to complete their high school education as those who delayed their first child until beyond the age of 18." (13) For the most part, this interruption of education is forced upon the mothers by our society. In 1965 Sauber and Rubinstein reported that the requirement of the New York City Board of Education (which was typical of others around the country) was that pregnant girls must withdraw from regular school attendance until they have had their babies. After their infant's arrival, these women may return to school to continue their education. (9) It is to New York City's credit that it changed these rules to permit pregnant teenagers to stay in regular school throughout pregnancy. Most school systems, however, have not changed their regulations in this manner.

One problem is that, after becoming a mother, it is more difficult to return to regular school. Fatigue, financial problems, fear of ridicule, and especially the difficulties in making adequate arrangements for the care of the infants prevents a large number from returning to school. Sauber and Rubenstein found that only about half of the unmarried school age girls returned to school after their babies were born, and of those who did return about one-third had dropped out again by 18 months without graduating. Until recently there had been almost no attempt in the United States to provide a real school equivalent for these mothers during pregnancy or to assist them in their return to regular school. One of the earliest attempts was the Webster school in Washington, D.C., described in a study by Howard. (18)

7. Financial problems. No data could be found regarding the financial problems of all teenage parents taken together. It is known, however, that a majority of the younger mothers are unmarried, and some data is available for them. Pregnancies to teenage women from middle and upper income families usually end in abortion, giving the baby up for adoption, or marriage, which may be financially assisted by one or both families. Sauber and Rubinstein found that approximately 45% of the unmarried mothers who retained their babies were on welfare at some time during the 18 month period immediately following delivery. (9) Sarrel found that 60% of his sample of 100 teenage unmarried mothers were on welfare at some time during a five year period following delivery of their first child.

However, the belief that illegitimate children form the bulk of children on welfare does not appear to be substantiated. Pakter et.al., found in 1961 in New York City that:

> ...contrary to popular opinion, the out-of-wedlock children did not constitute the majority of children on the welfare rolls. Of 193,376 children on the welfare rolls, as of August, 1959, 63 percent were born in wedlock. (7)

Sauber and Rubinstein found that approximately one-third of the unmarried mothers were working 18 months after delivery, which raises questions concerning completion of schooling, and the quality of mothering. Suffice it to say that for the unmarried teenage mother, and probably for most teenage parents, life is economically difficult at an age when they are frequently ill-prepared to cope with these problems. Financial problems are undoubtedly one of the stresses which contribute to the instability of many teenage marriages.

8. Skills as parents. It is difficult to see how high school age mothers, particularly those who live alone, could become satisfactory mothers without considerable help and support. A high percentage of the younger (unmarried) mothers who kept their babies have come from broken homes. (7,9) These studies, however, do not establish that the percentage is greater than for those from similar socio-economic groups who do not have early pregnancies. Psychiatrists are in essential agreement that both parents are needed in the home for optimum psychosocial development of the children. (30) What is not clear is whether or not it is better to have the husband and father around if he is inadequate and is a burden on the family. In all, the research on the effects of fatherless homes is confused, and we cannot confidently assert that a child from a "broken home" is more likely to have problems than is someone from a two parent home in otherwise similar circumstances. (21) As Dr. Rene Dubos has emphasized, man has an amazing capacity to adapt to a large number of different circumstances.

What Needs to be Done?

On the basis of the above data it seems desirable for teenagers to postpone childbearing until they are prepared to establish stable homes. Factors which would encourage this preventing the occurance of an undesirable condition would be called "primary prevention" in Leavell's classification of levels of health services. (22) The most basic approach to primary prevention is the subclassification of "health promotion". In the case of teenage pregnancy, health promotion would involve improving the economic, social, emotional, and educational climate in which children are raised. In fact, Herzog cautions against expecting too much from service programs in the absence of this type of fundamental social change. (10)

Still under the category of primary prevention, efforts focused specifically at preventing a particular problem are termed "specific protection". Few programs for the primary prevention of teenage pregnancy have been reported in the recent literature. A few community programs are now offering contraceptive services to teenagers regardless of marital status. (23,24) Garland described an extensive, community wide educational effort in Harlem, which, however, lacked **evaluation** (25)

If primary prevention has failed because an unwanted conception has occurred, then the methods of secondary prevention may be applied. This category also has two subclassifications, the first being "early diagnosis and prompt treatment". Abortion fits into this category, but as has been mentioned earlier, this is not greatly utilized by the poor. The ethical and religious questions raised by both contraception and abortion have been thoroughly discussed in a report of a symposium entitled BIRTH CONTROL AND THE CHRISTION, and will not be discussed here. (26)

If for one reason or another a teenage mother does not interrupt her pregnancy, programs to meet her needs could be described as "disability limitation" in Leavell's classification. These programs seek to prevent the undesirable medical, social, psychological, and educational results of and existing pregnancy, and to assist the parent(s) to prevent unwanted children in the future. Most existing service programs fall into this category, but unfortunately, with rare exceptions, there has been little careful effort to evaluate their success. (18,19)

In providing service programs for young teenage mothers, one must keep in mind that the problems of teenage parents, particularly those from poverty situation, are on at least two levels. The first is the level of circumstances, where one circumstance (i.e. pregnancy) itself creates other circumstantial problems (loss of education, financial problems, conflict with parents, etc.) Thus effective service programs must provide coordinated assistance to the many problems such as giving medical, social, financial, and educational services.

There is also another level of problems for the school age parents from poverty areas: their life style. Although these characteristics are sometimes overemphasized, the poor do tend to live with a deep sense of fatalism and hopelessness, live on a day-to-day basis without much planning for the future, and live with a general sense of alienation from society at large. (27) There is a sense in which these attitudes are justified by the constant degradation, defeat, and powerlessness experienced by the poor. Nevertheless, services to parents from this segment of society must take account of these attitudes, and work to build self-respect and self-confidence, so that they can cope with their problems rather than accepting them with resignation. Moreover, the alienation of these people makes them value personal relationships highly, but fear and suspect large, impersonal medical and social institutions, and rightly so, as the sociologist Andrew Billingsley has emphasized. In commenting on the social services provided by welfare departments:

> The most far-reaching and characteristic aspect of this service strategy has been the limited programs in selected communities, in which very young, upper middle class white female college graduates without any professional training have been hired by welfare departments because they scored high on examination. They have been given caseloads of sixty low income Negro families and told to visit them once a month to see that they were not cheating the government of money and to provide casework services. No one, with the possible exception of politicians and armchair reformers, could consider this a reasonable - to say nothing of maximum - effort to institute a service strategy. (28) p.187.

The Effectiveness of Current Efforts

We are in a state of crisis regarding our current approaches to providing social, medical, and educational services to our society, particularly to those from minority groups and those who are poor. There is widespread doubt in government and other circles as to whether we have a clear idea of how to program our efforts to help the disadvantaged. Despite this there has been little effort - at least until recently - to build careful evaluation into our service programs. Dr. Jack Elinson of Columbia has pointed out the dearth of careful, controlled, prospective studies of the effectiveness of "social action programs on health and welfare." (29) He could only find ten studies which met his rather straightforward critera for an adequate evaluative study during roughly a ten year period from the mid 1950's to the mid 1960's. And regarding these ten carefully performed evaluations, he comes to the disturbing conclusion that "I think it is not an unduly harsh judgment to make when I say that NONE OF THE TEN PROGRAMS OF SOCIAL INTERVENTION ACHIEVED STRIKING POSITIVE RESULTS." (Italics his)

It is perhaps not surprising that our current services are less effective than we would desire. Helping people with multiple problems is at best an immensely difficult and sensitive task. Add to this the subtle problems in communication and understanding which occur between those of different social, cultural, and economic backgrounds, and the opportunities for failure are apparent. Again Billingsley has put his finger on the heart of the problem?

> And even in...pilot projects and intensive service programs, the conception of service has been restricted by the middle class, professional, psychological perspective. The fact is however, we do not know in a professional way what services are required. We have not made sufficient efforts to find out from the people involved. (28) p.188

It takes more humility than the average middle class professional is able to muster to admit that *he* needs help from those he serves in order to be an effective servant. The servant must *truly* be a servant if he is to be truly effective. (30)

The Role of Society's Values

Proverbs 19:4 tells us that "Wealth maketh many friends, but the poor is separated from his neighbor." This, I would hold, is not a statement of a desirable condition, but rather an astute observation of fact. The poor in our society are, in fact, isolated and alienated, and few moreso than the young pregnant teenager.

The poor are isolated because the rich and the middle class have isolated them, by fleeing to suburbs, and by a thousand other more subtle (and often unrecognized) techniques that are lumped together by many under the term "racism". Few feel this isolation more than the pregnant teenager, married or unmarried, who is forced to leave her school as though she had some dread disease. In fact, teenage pregnancy (especially that which is out-of-wedlock) is such a threat to middle class values, that the educational system has sought to get rid of it by ostracism. Pregnant teenage girls are quite literally "outcasts" in our society. One early school for pregnant teenage girls had to be established in an administration building, because the educational authorities didn't even want it in the same building with the rest of the students. They did not want the other children "contaminated". I cannot find justification for this response in the New Testament. In fact, Christ became involved in disputes with the Pharisees over this very point when they condemned him for associating with "sinners", some of whom were adulterers. (31) Christ's response speaks clearly to our situation: it is the sick who need the physician, not the well; they need help that they may go and sin no more. But our wealthy society is more concerned to take care of its own, as we have seen above, than to help those in most desperate need. It was clear that the Pharisees were not interested in helping the poor, other than by a certain amount of ostentatious giving (cf. the parable of the good Samaritan). The parallels to our wealthy society seem clear: we will help by paying a certain amount of taxes and by giving to the United Fund, but please stay away from us!

The hypocrisy of the educational expulsion is clear, since only the female suffers this. She is unfortunate enough to show physical evidence of her behavior, but the male, who is often the agressor in producing the child, is not kept out of school since he shows no evidence. The message to the other students is clear: "it is OK as long as you don't get caught".

Vincent has pointed out the larger hypocricy of our society in which we "inadvertently encourage, if not explicitly condone, the cause (illicit coition), and explicitly censure and condemn the result (illicit pregnancy)." (15) Our society uses sex as a means to profit in all of the mass media, and yet is upset when this stimulation has the probable effect of increasing sexual awareness and activity. The Hebrew-Christian tradition firmly condemns fornication and adultery and I suspect it also condemns the modern use of sex as a tool for profit. Are not our youth being led into temptation?

But not only has our society encouraged youthful sexual behavior through the mass media, while condemning the result, it has also encouraged teenage pregnancy by permitting the problems of poverty in our society to grow to their current magnitude. This has been allowed to proceed so far because the wealthier groups have caused themselves to be "separated from the poor". Many distorted ideas about the poor have developed within the suburban middle class ghettos, and many have punitive overtones. For example, it is common to believe that the predominant cause of poverty is laziness. Because of this, the government has established a system of welfare based on a fear of rewarding the lazy. The result is levels of public assistance so low as to rob the recipients of any prospect of decent living conditions. The end result is degradation, loss of self-respect, and hopelessness, which to outward appearances may appear as laziness, but which could more accurately be termed 'defeat'. These attitudes, of course, mitigate against the poor coping with their current problems, and they are easily passed on to the next generation.

Society fears visible immorality as well as laziness, so that there has been strong pressure upon legislators to reduce the AFDC payments to mothers, particularly the increment for subsequent children, so that the [illegible] will not be found to be "rewarding immorality". But in fact, many [illegible] not most, welfare mothers are married, and subsequent children wil[illegible] husband's. The net effect of this attitude of middle class so[illegible]as well summarized by Herzog:

> And the few relevant studies available show that giving services and support does not increase them (out-of-wedlock births). Births out-of-wedlock do appear to be increased, however, by programs that put a premium on fatherless homes by refusing aid to families containing an able-bodied man, regardless of his ability to support. (10)

Billingsley believes that the welfare system, by requiring a recipient family to be without a male head, was more a cause than a result of the black family disintegration emphasized by Moynihan:

> Using 1960 census, Moynihan concluded that nearly 1/4 of Negro families were headed by females. The large proportion of fatherless families led him to conclude that Negro family was disintegrating and failing to prepare the Negro child to make his way in the world. In fact just the reverse was happening. (28,p.199)

Billingsley discusses the difficulties in removing the punitive attitudes from the welfare legislation in our "Christian" nation:

> Even after the focus on services and the interest in family stability entered the national thinking around 1962, and the Congress was persuaded to abandon the custom of requiring unemployed men to desert or divorce their wives in order for their families to be supported, only eighteen of the fifty states have adopted

> this provision and made it possible for such families to stay together and be supported. ...Not a single Southern state, for example, has taken advantage of the federally supported option to support dependent children while their father, though unemployed, remained in the home with his family. In many states, the husband and father must not only abandon his family, but must be gone for a period of time (up to ninety days in California) before the family can be considered eligible for this federal support. Thus it is clearly not the absence of an income strategy, but the presence of a wholly inadequate and dysfunctional income strategy, which has failed to stabilize Negro family life...(28, p.188)

Pakter's studies in New York City did not support the idea that we[illegible] encourages having more children:

> The belief that unmarried women on welfare rolls repeat the pregnancy in order to obtain additional grants is erroneous. Our study indicated that parity for the unmarried Negro and Puerto Rican women was essentially the same whether she was a recipient of welfare assistance or not. (7)

The way out of the present dilemma is likely to be in the direction of providing more, not fewer, services to teenagers.

Conclusions

It is my thesis that neither social nor scriptural data support the punitive attitudes discussed above. Rather the scriptural message and the social need would seem to require special efforts to help this group out of the vicious cycle of the problems they face. Before this will really be possible, however, society must change its attitudes, so that fear of rewarding the lazy and immoral does not undermine the efforts to help those in need. Society must also readjust its financial priorities to provide a realistic attack on the conditions which contribute to poverty and family breakdown. These changes are dictated by biblical concern for social justice. The solutions to the social problems of today will be no easier than were the solutions to the health problems of a century ago; in fact, they may be considerably more difficult and costly. But as a society - and as individuals - who claim to hold to the Hebrew-Christian system of values, we cannot do otherwise.

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EXHIBIT C

Community Programs For Adolescent Parents And Their Babies, The Role Of The State Department Of Health

Mary R. Langton, M.A., A.C.S.W.; Marion E. Eisnor, R.N., M.A.
Medical Social Work Consultant; Public Health Nursing Consultant

In previous issues of the monthly bulletin[1] we have described the attempts of the state department of health to improve medical and social services for unmarried mothers. The program which began in 1952, in the maternal and child health section, has been known as "Coordinated Medical and Social Care for Illegitimately Pregnant Women and Their Babies Born Out of Wedlock", a title which now sounds hopelessly old fashioned. This article will describe the development of the program to meet the needs of our changing times.

In the eighteen years since the program began, there have been gradual but pronounced changes in the whole out-of-wedlock picture, not only in Connecticut, but nationwide. Although the number of babies born out of wedlock continues to increase in Connecticut (up from 4,037 in 1968 to 4,518 in 1969, a 12% rise), social and moral attitudes toward illegitimacy are in a state of transition. These attitudes vary so greatly in different socio-economic sub-cultures of our society that there is no longer agreement as to how serious a problem out-of-wedlock pregnancy is or how best to deal with the parents and their babies. When young motion picture stars freely discuss their out-of-wedlock pregnancies and proudly present their babies to society through news media, the youth of this society becomes keenly aware of our uncertain social values.

Although the state department of health has been concerned primarily in assuring good medical care and social services for unwed mothers in order to prevent health and social problems, it has inevitably also been concerned with attitudes. In order for the mothers to receive care as early as possible, efforts had to be made to influence attitudes of professionals toward the unwed pregnant girl. If these attitudes were punishing, the girl's fears would be intensified. She would retreat from using the very services set up to help her with her

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Reprinted from the
Connecticut Health Bulletin 84,12 (December) 1970

"problem". On the other hand, if attitudes were too permissive, many feared it would encourage out-of-wedlock pregnancy. Helping physicians, nurses, social workers and educators serving the girls to steer a course between these two extremes was an essential part of the program. In order to do this, the focus of the program was on the promotion of good preventive health care which would be more likely to produce a healthy baby. Early social service could enable the girl to make a healthier social adjustment herself and help her make a sound plan for her baby. In spite of the fluctuating social values, this aim has given a steady and realistic function through the eighteen years of the program.

PHASE I

From 1952 until 1966 the program developed from a limited service to three rural counties to a statewide program. In the beginning, efforts were directed toward reaching individual physicians, nurses and social workers through meeting with hospital staffs, public health nursing agencies, social service agencies, and committees from the Connecticut Medical Society. Physicians were encouraged to call upon social agencies and public health nurses to assist the girl. The agencies were encouraged to call physicians to assure early medical care and to coordinate their efforts. The development of this inter-disciplinary communication became one of the most important accomplishments of the program. At first the program staff (maternal and child health physician, medical social work consultant, and public health nursing consultant) received many calls from these professionals, asking for information about how to effect referrals. However, as communication improved, this intermediary step became less necessary.

In order to facilitate the referral process, the program made funds available to pay for the prenatal and postpartum medical care of the pregnant girl and for hospital care of the mother and baby. This financial assistance, which was provided by the U. S. Children's Bureau funds for the program, was available for girls not eligible for any type of public welfare assistance and was contingent upon the girl receiving both medical and social services. Soon the referrals to the program were coming almost entirely from social agencies. They saw to it that the girl received medical care and gave counselling to her and her family. Patients were never seen by the program staff, an arrangement which helped to strengthen the relationship between the girl and the social agency. By 1968, 191 girls a year were receiving this financial aid from the program. Most were middle-class white girls who were placing their babies for adoption. They or their families had marginal incomes. Young clerical workers who were self supporting were the largest group referred.

PHASE II

In 1964 the department began the out-of-wedlock study described in the article in the February 1970 bulletin. The following facts were highlighted by the study:

September, a program started with the active participation of the community health and social agencies and the special pupil services of the school.

- **Middletown**: A slight modification has been made for a project centering around Middletown. Here a regional approach is being tried. The MCH staff, at the invitation of one of the social agency directors, approached the Middlesex Area Interagency Council to interest them in developing a program covering the fifteen towns in the Middlesex area. The Council formed a sub-committee which wrote a proposal for MCH funding for a planner to develop a regional program. Two part-time people were employed by the Council in June 1970, to begin this task. The first girls to be brought into the program were from Long Lane School. The social work director who had formerly worked in the state department of health was eager to use the new program to help the pregnant girls at the school.

- **Norwalk**: In November 1969, the medical social work consultant of the maternal and child health section asked the executive director of the Greater Norwalk Community Council to meet with her to discuss how a program could be developed in Norwalk. The maternal and child health staff were invited to meet with the Council's Adolescent Mothers Committee which had been meeting for many months to consider how to provide improved services for these mothers. The hospital professionals, who have a special interest in adolescents, have been very active, along with the representative of the schools and local health and social agencies. A coordinator is expected to begin a program before January 1971.

- **Hartford**: In Hartford an altogether different approach has been taken. The committee which had planned for the Interagency Services for School-Age Mothers five years ago is now concerning itself with coordination of services to all unwed mothers. The MCH staff, which was active on this committee, suggested using MCH funds for a planner-coordinator who has been employed by the Greater Hartford Community Council to assure that services are improved, the gaps in services spotted, and new services developed. The planner is assisted not only by the professional advisory committee (which includes the MCH medical social work consultant), but by a community committee of concerned citizens representing the consumers of service.

Since the Interagency Services program has now been taken under the direction of the Hartford Board of Education, MCH funds have been given to two community agencies to supplement the services of the school department. The Child and Family Services of Connecticut is providing additional follow-up services and research for evaluation. The Hartford Visiting Nurse Association is providing a special instructor from the Parents Association for Childbirth Education. She will work with the public health nurse from the VNA who is assigned full time to the school program.

Other Aspects of MCH Staff Consultation

It is needless to say that hours of valuable time have been given by the MCH staff, as well as by the local committee members, to work out sound plans which would involve all elements of the community in active participation on these new projects. As the ongoing programs grow, many unmet needs are uncovered. Additional agencies have been asked to join the committees. Physicians, especially obstetricians and pediatricians, have been kept informed by the committees, the coordinators, and the MCH staff Services have been modified to better meet the needs of the adolescent mothers. Some hospitals have re-scheduled prenatal clinics to give special attention to these girls. Staff of city health departments, Model Cities programs and community-action agencies have been involved to assure that new programs fit into plans for overall community service development. MCH staff has met with representatives of the Department of Community Affairs, the State Department of Education (Division of Vocational Rehabilitation and Bureau of Pupil Personnel and Special Educational Services) to discuss how they could contribute to the program services. The State Welfare Department, the Department of Mental Health, and the Department of Children and Youth Services have been kept informed of the MCH staff statewide efforts in behalf of young parents. Although the MCH staff has encouraged local committees to ask consumers of services to join them, in only a few committees has this been possible as yet. However, it remains an important goal of the programs.

As local programs have developed, MCH staff consultation has been given to encourage them to expand from a narrow focus on unwed mothers to a broad one of concern for teen age parents. It is generally agreed that young married couples have as many problems as unwed mothers. Increasingly the young fathers are being brought into the programs. It has been found that the boys will come to see those who show genuine interest in the girls. They, too, need help as troubled youth and as young fathers.

Interest in follow up for the young family has increased as a result of these programs. It is apparent that often after the baby is six months or a year old, serious problems arise in areas as child care, intra-family conflicts, job training and employment. The agencies are committed to follow up services to the young parents for as long as they need help. It is hoped this investment of effort by the agencies and by the MCH staff will pay off in healthy family life.

Evaluation of the community programs has been difficult. Although the program goals have been clearly spelled out, measuring success in reaching them is a complex process. The goals of the programs are generally as follows: 1) to improve prenatal and postnatal medical care for the mother and health care for the child, 2) to enable the girls to continue or complete their schooling during pregnancy, 3) to coordinate services to the girls from various social, educational, recreational and health agencies, 4) to assure the girls return to school or to job

Most of the 3049 unwed mothers were very poor (over one-half were receiving public assistance).

- Sixty-five percent were keeping their babies.
- Most of those who kept their babies were Negro or Puerto Rican (90.3% of the Negro babies and 93.3% of the Puerto Rican babies went home with their mothers).
- Forty-three percent of the 635 mothers who were in school received no special schooling during pregnancy.
- Only 69% of the mothers were known to have received regular prenatal medical supervision; most did not begin regular medical care until the fifth month or later.
- Thirty-eight and five-tenths percent of the white mothers, 37.4% of the Negro mothers, and 32% of the Puerto Rican mothers were teenagers.
- Thirty-eight percent of the mothers had at least one previous out-of-wedlock pregnancy.

It became apparent even before the study was published in 1969 that the program would have to be changed in order to provide services for the majority of unwed mothers who kept their babies. The study showed that these girls did not go to social agencies other than welfare departments for financial help. This included almost all of the Negro and Puerto Rican girls.

A decision was made to gradually phase out the old program which was based on our giving financial assistance to girls referred by social agencies and to find new ways of reaching this larger group of mothers. Most of them were, by virtue of poverty and immaturity, greatly in need of help for themselves and their babies.

Through reading about programs in other states[2] and through previous experience in working with several Connecticut communities which had developed special programs for pregnant school girls[3], possibilities were seen for preventive public health work and for spending program funds and using staff time in developing community programs for teenagers having their first babies. This group seemed to offer the most favorable prognosis for rehabilitative efforts. It was also a group which could attract the most public interest and sympathy because of their youth. Interest in this group is high because they are considered high risk from a medical and social point of view. They seem to have so many needs which are best met by an inter-disciplinary, community approach. Previous program contacts with hospitals, physicians and agencies could be used to build a new type of program. In May 1968 the program statewide advisory committee, made up of representatives of these agencies, agreed that this new focus was needed and approved and encouraged program changes to more realistically meet the needs of unwed mothers.

- **Waterbury**: In July 1968, the first opportunity came to participate in the development of what have come to be referred to as "community-based comprehensive programs for teenage parents". Through two social agencies it was learned that a committee had been meeting at the YWCA in Waterbury to develop such a program. The committee, typical of groups organized in other communities, was composed of representatives of the schools and social and health agencies concerned with unwed mothers. The staff of the state maternal and child health program was invited to meet with the Waterbury committee. After a number of planning meetings, a proposal was written requesting funds from the MCH program to provide a coordinator who would direct a project to try to reach all teenage pregnant girls. The committee was to hire the coordinator and act as the policy-making body. All the agencies agreed to make referrals to the project and to provide services. The Visiting Nurse Association agreed to provide instruction in prenatal and infant care, the two family agencies to do individual and group counselling; the Nutrition Council to give nutrition education and supervise lunch; the Board of Education to provide teachers for either homebound instruction or classes in a special school. Within six months the Board of Education had agreed to hold the special school in the YWCA where the girls had been coming for the rest of the program. The committee continued to meet to iron out problems and to plan how to meet gaps in services, e.g., infant day care. The staff of the MCH program continues to serve on the committee and to give consultation as needed. After three years of MCH stimulus for funding for the project, local funding has been obtained by the committee, thus permitting utilization of MCH funds elsewhere in the state for similar projects.

- **Stamford**: While the Waterbury project was developing, the MCH staff started working with a similar committee which had been organized in Stamford. In June 1969, MCH funds were given to the Stamford City Health Department for a coordinator. As in Waterbury, the coordinator, hired by the community committee, directs a program which includes academic instruction, health education, instruction in prenatal and child care, social service and vocational counselling. The coordinator is active in reaching out to find all teenage mothers, including school drop-outs, and to see that they receive services. The committee, including the MCH staff, meets regularly to decide on matters of policy and to find ways to meet emerging needs of the girls.

- **Meriden**: In September 1969, the MCH staff was asked by the director of the Meriden YWCA for help in planning a project for teenage parents. As a result of MCH staff consultation, a community committee was formed. After many meetings, a plan was written and a coordinator was hired with MCH funds. In training or employment whenever appropriate; 5) to identify unmet needs and to plan how to meet them; 6) to assure follow-up services for as long as they are needed to strengthen the young family.

The programs so far have demonstrated that many girls want and will get the schooling they need, rather than drop out as they often did in the past. Because of the increased individual attention they receive through special schooling, some girls return to regular school with a better academic record than they had formerly and a more positive attitude toward education. Through prenatal and health instruction they gain new knowledge about their bodies, so that the ignorance which may have contributed to their becoming pregnant can be dispelled. They keep their medical appointments, not only because someone is checking to see that they do, but also because they understand how it will help them and their babies to be healthier. Education in child care can add a new dimension to their feelings for the importance of their new role as parents. Many girls report that for the first time they feel someone cares what happens to them. They begin to show that they, too, are about themselves and their babies' future. This growing self-esteem will, hopefully, have positive results for improved family relationships and for expanded life goals.

It seems that by reaching these young people in a time of crisis, much groundwork can be laid for future growth in mental and physical health. Although the programs cannot guarantee that the girls will not have other babies out of wedlock, their increased sense of worth and self-confidence should help some of them to avoid having another baby for whom they are not ready. It is hoped that they will learn new ways of handling their personal and social problems which will enable them to make a good social adjustment, as well as to achieve personal fulfillment.

There is no way to evaluate the long-range goal of strenghtening family life although healthy family life is thought to be one of the deterrents to out-of-wedlock pregnancy. Some evidence may show up as the babies reach school age. Hopefully, they will be healthier, happier children, with fewer emotional handicaps for learning.

Future Plans

The MCH Section of the Connecticut State Department of Health plans to continue to work with communities to develop services for and with young parents. MCH staff will remain active on the committees in the programs already funded: Hartford, Stamford, Waterbury, Norwalk, Meriden and Middlesex areas. As these programs obtain funding from other sources, hopefully after a three-year demonstration period, state MCH money will be available for new programs.

Now that all the major Connecticut cities have developed programs (Bridgeport and New Haven have well-established programs not funded by MCH), a regional approach is being considered. For example, plans are being made to work with Area Cooperative Educational Services (ACES), a regional federally-funded educational program covering sixteen towns surrounding New Haven, to develop a program in this area.

Conclusion

In the eighteen years of the program's duration, many of the barriers to education and health care for unwed mothers have been lowered. Financial assistance through medicaid is often available now. Mothers have more options in planning for themselves and for their babies' future. Nevertheless, there is still much to be done to help all young parents. Even if family planning services and abortions become more readily available, there will continue to be some out-of-wedlock births. The mothers and babies are going to need not only improved, readily accessible health, educational and social services, but new resources, such as half-way houses, where the one-parent family can live with built-in child care and other supportive services for education and training. Profitable areas of exploration may be in premarital and marital counseling for young people and education to prepare them for responsible parenthood.

Many of the areas of need lie outside of the direct influence of the state department of health as they are part of the pathology of our society. There is need for new approaches to public education, public welfare assistance, unemployment, and housing. Much more has to be done to improve family life. Education for family living in a pluralistic society is a necessity if our youth are to achieve maturity and stability.

The state department of health will continue to have a role in stimulating the development of new services and in influencing public attitudes, with the long-range goal of strengthening the capacities of young parents, both unwed and wed, to cope with the stresses of a complex, changing society, so that they can rear children who are healthy in mind and body.

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An extensive bibliography is available upon request from Maternal and Child Health Section, Connecticut State Department of Health, 79 Elm Street, Hartford 06115.

EXHIBIT D

Reprinted from the American Journal of Public Health
Vol 65, Number 4, April 1975
Printed in U.S.A.

A Comparison of the Health of Index and Subsequent Babies Born to School Age Mothers

JAMES F. JEKEL, MD, MPH
JEAN T. HARRISON, MPH
D. R. E. BANCROFT, MPhil
NATALIE C. TYLER, RN, BA
LORRAINE V. KLERMAN, DrPH

This study of school age mothers reveals that the risk of prematurity and perinatal death increases greatly in their second and third pregnancies.

Introduction

Approximately 350 special programs have been developed in America over the last 10 years which provide medical, educational, and social services to school age parents. The medical component of these programs varies considerably, some programs merely refer clients elsewhere for medical care and some provide obstetric and/or pediatric care along with educational and social services. This paper reports some of the findings from a 5-year prospective evaluative study of a comprehensive program for school age mothers which integrated obstetric care with other services. The health at birth of the index infant (the product of the pregnancy which brought the mothers into the special program and, hence the research sample) is compared with the health of subsequent infants born to the same mothers.

An earlier report from this project concluded that the infants born to mothers served by the comprehensive program were significantly more healthy at birth than were infants born to a control group who received traditional obstetric clinic care.[1] The questions being considered in the present paper are (1) did the apparent health benefit for the index infant also hold for infants born subsequently?; and (2) if not, why not?

The Special Program

The Young Mothers Program (YMP) in New Haven, Connecticut, provided educational and special services through the Polly T. McCabe Center as well as obstetric and social services through the Yale-New Haven Hospital, where a special clinic was established to serve school age mothers exclusively. Continuity of care was emphasized fro[illegible]e 7th month on, and the obstetrician or nu[illegible]wife who provided prenatal care was usually the one who delivered the baby (or at least was present at the delivery) and followed the mother through her postpartum period. The social workers held two or three intake interviews with each young mother and then saw her as needed. Group sessions were offered at which a wide range of topics was discussed

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Dr. Jekel, Ms. Harrison, Mr. Bancroft, and Ms. Tyler are affiliated with the Department of Epidemiology and Public Health, Yale University School of Medicine, New Haven, Connecticut 06510. Dr. Klerman is with the Florence Heller Graduate School for Advanced Studies in Social Welfare, Brandeis University, Waltham, Massachusetts. This study was supported by Grant MC-R-090048 from the Maternal and Child Health Service, Health Services and Mental Health Administration, Department of Health, Education, and Welfare. This article was presented at the 100th Annual Meeting of the American Public Health Association, November 13, 1972, Atlantic City, New Jersey.

relevant to pregnancy, delivery, contraception, child care, and relationships with men. Many of the young mothers were no longer eligible for the YMP clinic during their subsequent pregnancies because of age and some who were eligible were not referred to the special clinic or did not choose to return to it. Therefore, for most subsequent deliveries, prenatal care was obtained in the regular obstetric clinics.

The Study Method

The health at birth and in the immediate postpartum period of 180 index infants was compared with that of the first 103 subsequent infants born to a cohort of 180 young mothers who registered for prenatal care for their index pregnancy in the Young Mothers Clinic of the Yale-New Haven Hospital between September 1, 1967, and June 30, 1969. All of the young mothers were under 18 years, unmarried, and residents of New Haven at the time they registered for care in the special obstetric clinic. Most of them (95 per cent) were nonwhite, and most were poor. 10 had delivered one infant previously and two more had delivered twice prior to intake into the program. The primary data sources were hospital, clinic, and emergency room records from the Yale-New Haven Hospital. These data were supplemented by records from the Hospital of St. Raphael, the only other hospital in the New Haven area, and from clinicians' rating forms, school records, and postpartum interviews. All of the index babies and all but two of the 103 subsequent babies were delivered at the Yale-New Haven Hospital. Therefore, the primary sources of data were comparable for almost all of the deliveries.

Findings

Method of Termination

By the end of the follow-up period, January 31, 1972, 79 of the 180 mothers in the study population were found to have delivered one or more subsequent infants of 20 weeks gestation or more at the Yale-New Haven Hospital, and they had delivered a total of 103 babies. In addition, 21 spontaneous abortions were recorded among 18 mothers, 22 medically induced abortions were found among 21 mothers, and one young mother had a self-induced abortion. The large number of induced abortions suggests that teenagers will choose to terminate a subsequent pregnancy when the alternative of abortion is legal and available.

Comparison of Health at Birth among Index and Subsequent Babies

The most striking finding was the significantly higher risk of perinatal mortality and prematurity among the 103 subsequent infants than among the 180 index infants.

SURVIVAL

Nine of the 103 subsequent infants died in the perinatal period compared to two of the 180 index infants. Among the nine subsequent perinatal deaths there were eight hebdomadal deaths and one stillbirth; two of these infants had the same mother. The subsequent infants, therefore, had a rate of death almost 9 times that of the index infants. A difference this large would occur by chance in less than one case in 1000. Clearly, subsequent babies born 2 to 4 years (mostly less than 2 years) following an initial school age pregnancy had a significantly higher risk of perinatal death than did their older siblings.

PREMATURITY

Twenty-eight of the subsequent infants (27 per cent) were of low birth weight, under 2500 gm (Table 1), which is over twice the proportion of prematures in the index group, and is even higher than the 23 per cent premature rate reported by Waters in 1969 for subsequent deliveries to young mothers.[7] Low birth weight is associated with, and is presumably a causative factor in, most deaths around the time of birth. The range of the birth weight in the nine infants who died was between 580 and 2220 gm. Only two weighed over 2000 gm. Thirty-two per cent of the infants of low birth weight died; none died who weighed 2500 gm or more.

Factors Associated with High Risk

Two factors are apparent. The study population delivered less healthy babies in subsequent deliveries than in the initial ones despite the fact that the mothers were older. Second, prematurity was the most important immediate cause of perinatal death. The following will be considered

TABLE 1—Obstetric Outcomes among Index and Subsequent Infants

	Index (N = 180)		Subsequent (N = 103)	
Outcome	No.	%	No.	%
Survival				
Perinatal death	2	1.1	9	8.8
Living infants	178	98.9	94	91.3
Total	180	100.0	103	100.0
	$\chi^2 = 8.26$, $p < 0.01$			
Birth weight				
Less than 1000 gm	2	1.1	3	2.9
1000–2499 gm	19	10.6	25	24.3
2500+ gm	159	88.3	75	72.8
Total	180	100.0	103	100.0
	$\chi^2 = 11.04$, $p < 0.01$			

TABLE 2—Obstetric Outcomes among Index and Subsequent Babies Born at Yale-New Haven Hospital, by Birth Order

	Birth Order							
	1		2		3		Total	
Outcome	No.	%	No.	%	No.	%	No.	%
Survival								
Perinatal death	1	0.6	6	7.1	4	14.3	11	3.9
Living infants	167	99.4	79	92.9	24	85.7	270	96.1
Total	168	100.0	85	100.0	28	100.0	281*	100.0
Birth weight								
Less than 1000 gm	1	0.6	2	2.4	2	7.1	5	1.8
1000–2499 gm	17	10.1	16	18.8	10	35.7	43	15.3
2500+ gm	150	89.3	67	78.8	16	57.1	233	82.9
Total	168	100.0	85	100.0	28	100.0	281*	100.0

* Two subsequent infants born at the Hospital of St. Raphael are excluded from this analysis.

as possible reasons for the high rate of prematurity: parity, delivery-to-conception intervals, prenatal care, and differences between mothers.

Parity

The number of previous deliveries was associated significantly with survival. Considering index and subsequent deliveries at the Yale-New Haven Hospital only, first births had a risk of perinatal death of less than 1 per cent, second births 7 per cent, and third births 14 per cent. The corresponding prematurity rates among these infants were 11 per cent, 21 per cent, and 43 per cent (Table 2).

For women in their twenties, second deliveries involve less risk of prematurity and perinatal loss than first deliveries, which is in contrast to the pattern observed among these teenagers.[3] The increased risk in subsequent pregnancies among these young mothers appears to have resulted from the interaction between age and parity, i.e., high parity in a young mother produced high risk.[4] The mechanisms for this interaction may be physiological factors, such as nutritional deficits and/or hormonal immaturity, or social and environmental factors, such as poverty and inadequate health care.

Delivery to Conception Interval

In order for a woman to have several pregnancies in her teens,* conceptions may occur at short intervals. Possibly one of the factors leading to prematurity and perinatal death was the length of the interval between the previous delivery and the subsequent conception. The young mother might not have had enough time to prepare physiologically and nutritionally for a new pregnancy.

TABLE 3—Obstetric Outcomes by Interval from Previous Delivery to Subsequent Conception

	No. of Months from Previous Delivery to Subsequent Conception			
Outcome	No.	Mean	Median	Range
Perinatal death	9	12.2	14.0	3–29
Premature live birth	20	12.7	10.5	4–36
Full term live birth	73	12.3	10.0	1–47
Total	102*	12.4	10.0	1–47

* One set of twins considered one delivery.

	Mean Square	df	$F = 0.022$
Among groups	1.507	2	
Within groups	67.295	99	$p > 0.5$

The number of months between the previous delivery and the subsequent conception was calculated for the subsequent deliveries. If a delivery was less than term, the approximate gestation interval was estimated from the birth weight. Contrary to expection, a one-way analysis of variance showed no statistically significant difference between the average conception intervals for the various outcome categories (Table 3).

Prenatal Care

In both index and subsequent pregnancies, a strong relationship was demonstrated between the number of prenatal visits and the outcome of the delivery; i.e., women who made fewer prenatal visits were more likely to deliver prematurely or to have their infants die in the perinatal period. This finding can be partly explained by the fact of prematurity, which reduces the number of prenatal visits a woman can make.

The mothers who had subsequent deliveries sought less care for the subsequent than for the index pregnancy. All kept at least one clinic appointment during the index pregnancy, and the average number of appointments kept was 7.7. For the subsequent deliveries, seven (6.8 per cent) received no prenatal care, and the average number of appointments kept was 5.1. Of the nine perinatal deaths, two of the mothers had no visits, five had only one, one had three, and the visits of one were unknown. Some of the deaths might have been presented had the mothers sought early and regular care, but this association cannot be shown to be causal.

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* All but two of the subsequent deliveries were to women who were under 20 years of age when they delivered.

Differences between Mothers

Were the mothers who delivered again different from those who did not in ways that may have influenced obstetric outcomes? Four categories will be analyzed: preexisting characteristics, participation in the special program, obstetric outcomes for the index pregnancy, and subsequent life status.

PREEXISTING CHARACTERISTICS

The two groups did not differ significantly on any of the following preexisting characteristics: age, race, religion, socioeconomic quartile, length of residence in New Haven, number in the household, ordinal position, birthplace, educational goals, appropriateness of grade level, number of parents in the household, welfare status, or number of previous pregnancies.

PROGRAM PARTICIPATION

Women who delivered again participated less in the special programs. For example, the mothers who later had subsequent infants attended the special educational program a lower percentage of the days for which they were eligible and participated less actively in the group sessions.

The mothers who delivered again also made fewer prenatal visits during the index pregnancy, although this did not appear to influence obstetric outcomes adversely for that pregnancy. Their average number of clinic visits during the index pregnancy was 7.7, compared to 9.1 visits for those who did not have subsequent deliveries ($t = 2.760$, df $= 178$, $p < 0.01$). This difference was partly explained by the fact that those mothers who later had subsequent children came for care about 1½ weeks later in gestation during the index pregnancy and kept a lower percentage of clinic appointments. These differences in participation during the index pregnancy may reflect subtle differences in social, psychological, and/or environmental factors which affected the outcomes of subsequent pregnancies either directly or through reduced prenatal care.

INDEX OUTCOMES

No significant difference could be found between the 79 mothers who delivered again and the 101 who did not in the obstetric results of the index pregnancy (Table 4). Nor did the two groups differ on any other index of maternal and child health during the index pregnancy. As a group, those mothers who delivered again evidently were biologically as able to produce healthy children as those who did not. The results of the subsequent deliveries, therefore, do not reflect a selection process whereby the mothers at highest risk were those who delivered again.

SUBSEQUENT LIFE STATUS

The mothers having subsequent babies differed from those who did not on a number of indicators of life status at 15 and 26 months postpartum. For example, they were less likely to be in school and to be working. However, it is difficult to interpret these data as indicating a difference between the index and subsequent mothers, because the very fact of having another pregnancy may be the explanation for less schooling and employment.

Discussion

During the past decade, special interest has been focused on the very young mother, and many programs have been established to reduce her obstetric risks. Less attention has been focused on those mothers having subsequent pregnancies, perhaps because it has been assumed that the added year or two between pregnancies reduced obstetric risk, or perhaps because program staff are not aware of the problems of these same girls as they

TABLE 4—Obstetric Outcomes of Index Pregnancy, by Subsequent Delivery

	Subsequent Delivery					
	Yes		No		Total	
Obstetric Outcome of Index Pregnancy	No.	%	No.	%	No.	%
Stillbirth	0	–	0	–	0	–
Hebdomadal death	0	–	2	2.0	2	1.1
Premature live birth	9	11.4	10	9.9	19	10.6
Full term live birth	70	88.6	89	88.1	159	88.3
Total	79	100.0	101	100.0	180	100.0

become older, since they are less likely to use special services. However, this study indicates that subsequent infants are at greater obstetric risk than those infants delivered previously, when the mother received special services for her initial pregnancy. More attention should be given to subsequent pregnancies among teenage girls, both from a service and a research viewpoint.

The reasons why some of these mothers had little or no prenatal care for subsequent pregnancies are not apparent. The fact that these mothers also sought less care for the index pregnancy than those mothers without subsequent pregnancies suggests that they had less understanding of the importance of obstetric care, or that something in the home situation interfered with clinic attendance.

The YMP, which assisted the young mothers to achieve good obstetric outcomes during the index pregnancy, did not appear to have helped those with subsequent pregnancies to have equally good obstetric outcomes.

The crucial questions are why, despite the special program's extensive educational effort during the index pregnancy, many did not use contraception, and why many of those who were pregnant again did not receive adequate care.

Perhaps the young mothers felt guilty about returning for care since the program personnel had expected that they could be successful contraceptors. Those encouraging the use of contraceptive methods may not have felt able at the same time to help the young mother to plan for the failure of family planning. Is it really possible to say with conviction, "You *can* postpone the next baby if you want to" and at the same time say, "If you do have another baby come back to see us early"? It was apparent that some of the girls felt keenly the expectation of the clinicians who gave them the contraception, because more than one stated at interviews 1 to 2 years later that they would not feel right about going back to the Young Mothers Clinic with another baby.

Conclusions

During the past decade, more interest has been focused on providing care for young mothers during their first pregnancies than during subsequent ones. This study suggests that the infants at greatest risk are those delivered subsequently to girls still in their teens. Clearly, the high risk of prematurity and perinatal death provides justification for delay of subsequent infants in teenage mothers.

If subsequent pregnancies cannot be prevented, greater efforts should be made to provide care to young mothers experiencing second or third pregnancies.

A special comprehensive crisis intervention program for school-age mothers, while apparently having a positive effect on obstetric outcomes for index infants born to participants, had no long lasting impact (i.e., no beneficial effect on the outcomes of subsequent pregnancies).

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EXHIBIT E

This report deals with the behavior of school age girls who receive family planning services. Such services cannot be provided in a vacuum and the study tries to define the factors influencing the relationship of the girls to the services and their reproductive behavior.

Factors Associated with Rapid Subsequent Pregnancies Among School-Age Mothers

James F. Jekel, M.D., M.P.H.; Lorraine V. Klerman, Dr.P.H., and Diccon R. E. Bancroft, M. Phil.

Introduction

Can family planning services be offered to school-age mothers in the same way as to other, older patients, or must new approaches be tried to overcome the special problems of this group?[1] Preliminary findings from a larger study of multiservice programs for teenage pregnant girls suggest that contraceptive programs must be specifically tailored for this youthful group.

This report analyzes the reproductive performance of the participants in two such programs and relate this performance to: 1) the characteristics of the programs, 2) certain pre-existing characteristics of the participants, 3) the degree of their participation in one of the programs, and 4) other findings at 15 months postpartum.

Description of Programs

The two programs studied are compared in Table 1. Since they have both been described fully in an article in another journal, only those aspects relevant to family planning will be reviewed. The New Haven Young Mothers Program provided a special obstetrical clinic for teenage mothers where continuity of care was emphasized. After the 28th week, the obstetrician or nurse-midwife responsible for each case saw the patient each antepartum visit, in most cases was present at the delivery, and examined the new mother at her first postpartum visit, when contraceptive methods were considered. The obstetrician and nurse-midwives also participated in many of the group sessions conducted by social workers at the McCabe Center* during which topics of interest to the mothers-to-be, including family planning, were discussed. By contrast, Hartford's Interagency Service program did not provide any medical services, but did require its clients to receive obstetrical care, either at one of the three local hospital clinics, or through a private obstetrician. Family planning received vigorous attention in both the medical and social service aspects of the YMP program. In Hartford, however, the hospital clinics and private physicians varied in their emphasis on family planning. Family planning education was provided within the school setting by a nurse assigned by the local visiting nurse association. According to the hospital records in Hartford, contraceptives were prescribed for 69% and 73% of those returning for 6 week postpartum checkups to the two non-Catholic hospitals in Hartford, and for only 3% in the Roman Catholic Hospital, which served about half of the program participants.

Method

One hundred and eighty girls were entered into the research project through the Young Mothers Clinic at the Yale-New Haven Hospital in New Haven, Connecticut (YMP group), and 160 through the special school operated by the Interagency Services Program in Hartford (IAS).

Two methodological problems caused modification of the original plans for data analysis. First, the high mobility of the populations caused delay in finding some of the mothers scheduled for the second of three waves of interviews, and, consequently, median times for the second interview (whose results are reported here) were 14 months in Hartford and 16 months in New Haven.† New Haven's completion rate, however, was 91%, or 164 completed interviews; Hartford's was 127, or 80%. For convenience these data are reported as 15 month postpartum findings.

Second, despite the fact that both study groups met the same research criteria (each participant had to be in the

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*A multiservice center for pregnant girls of school age maintained with the cooperation of several New Haven agencies. Its principal component is a school operated by the Board of Education.

†Interviews originally were scheduled at 2, 13, and 24 months postpartum.

Table 1—Comparison of Services Provided by the Young Mothers Program (YMP) and Inter Agency Services Program (IAS)

	New Haven Young Mothers Program (YMP)	Hartford Inter Agency Service Program (IAS)
Medical Services	Special clinic for teenage mothers. Continuity of care emphasized. Some cases cared for by nurse-midwives	Referred to one of 3 hospitals or to private physician
Educational Services	Serves grades 7-12 Obstetricians & nurse-midwives participate in educational sessions led by social workers at McCabe Center	Serves grades 9-12
Social Services	Only social workers with master's degrees employed	Social workers with bachelor's degrees supervised by person with master's degree
	Hospital based but much work done at Center	School based
	Mixed casework-groupwork approach	Emphasis on informality and "non-prying" approach
School Nursing Services	Provided by V.N.A.	Provided by V.N.A.

program and, at registration be under 18 years of age, unwed, and resident of New Haven or Hartford) and were demographically similar, differences between the two groups arose due to variations in the intake policies of the two programs. For example, since the Young Mothers Clinic accepted pregnant school girls of all ages, as did the school at the McCabe Center, there were some junior high school students in the New Haven sample. Intake into the Hartford study sample, however, was through the IAS school, which served only grades 9-12, and therefore this group did not include any junior high students. Moreover, some of the girls served by the Young Mothers Clinic did not attend the special school, whereas all IAS girls attended the special school since it was the source of intake. To eliminate the possible effect of these differences in the populations, a modified sample of YMP girls was created which met all of the intake criteria for the IAS school, namely, they attended the special school and were 9th grade or above. In addition, the few whites in each sample were removed to provide greater demographic homogeneity with only a small loss in sample size.

The results, and importance, of this modification are shown clearly by Table 2. Table 2a shows the 15 month status of the two study populations before they were made equivalent and suggests that the IAS mothers were more successful than those in the YMP in delaying subsequent pregnancies, staying in school, finding jobs, and becoming independent of welfare assistance. When the groups are compared after modification (Table 2b), the differences previously noted either have disappeared or been sharply diminished. This demonstrates the danger of drawing conclusions about the relative effectiveness of different programs on the basis of end-result statistics, unless the groups served are closely similar.

Reproductive History at 15 Months Postpartum

Comparison of Two Programs

The similarity in rates of subsequent pregnancy and other short term outcome variables in the modified samples at 15 months postpartum suggests that the two different multiservice programs (YMP, IAS) provided similar opportunities for their clients (Table 2). At this point, neither program is clearly superior to the other. Perhaps the truth is that a variety of multiservice programs staffed by dedicated people can provide the needed opportunities, and that given quality programs, the differences in "outcomes" observed among programs are due more to differences in populations served than to program details.

*Association with Pre-existing Characteristics (YMP only)**

There were no statistical associations between the following demographic, economic, and educational characteristics of the girls at registration and whether or not they had a rapid subsequent pregnancy: age, number of years of residence in New Haven, number of parents in the household, total number of persons in the household, ordinal position,

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*The following sections are based on a total of 164 young mothers interviewed at 15 months postpartum.

Table 2—Comparison of 15 Month Status, YMP and IAS Groups, Before and After Modification to Make Groups Equivalent on the Basis of Intake Criteria

	A. Before modification				B. After modification			
	YMP N=164		IAS N=127		YMP N=106		IAS N=121	
	No.	%	No.	%	No.	%	No.	%
Subsequent pregnancy								
No	125	(76)	104	(82)	87	(82)	99	(82)
Yes	39	(24)	23	(18)	19	(18)	22	(18)
Education								
In school or graduated	92	(56)	96	(76)	73	(69)	93	(77)
Dropped out	72	(44)	31	(24)	33	(31)	28	(23)
Employed at time of interview								
Yes	50	(30)	51	(40)	40	(38)	49	(40)
No	114	(70)	76	(60)	66	(62)	72	(60)
On welfare								
No	49	(30)	43	(34)	34	(32)	40	(33)
Yes	115	(70)	84	(66)	72	(68)	81	(67)

number of previous pregnancies, socioeconomic quartile, welfare status, educational goals, or whether or not they were in the appropriate grade. The lack of associations may be related to the homogeneity of the study group on many of these variables, which was partly due to the nature of the program (based in a hospital clinic) and partly to the research design (all who participated had to meet the study criteria.) Among the pre-existing characteristics, only school status at registration was correlated significantly with subsequent pregnancy (p<.01): those in school were less likely to become pregnant again by 15 months postpartum.

Association with Program Participation (YMP only)

The study also measured the girls' participation in the three major components of the YMP: obstetric, educational, and social service. The variables that measured participation in the obstetric clinic, such as the week of gestation they registered for care and the number and percentage of antepartum clinic visits kept, were not associated with avoiding a rapid subsequent pregnancy. However, the following variables were associated with delay of pregnancy beyond 15 months: attending McCabe (p<.05), attending McCabe regularly (p<.01), and attending a high number and percentage of the group sessions conducted by the social workers (p<.05).

Those who had delayed another pregnancy beyond 15 months postpartum tended to have participated actively both in the school program and in the social work component. The strongest association was with the percentage attendance at the school for those registered for credit (Table 3). Thirty percent of the 73 poor attenders (those who attended less than 60% of the time) were pregnant again by 15 months, whereas none of the 24 with good attendance (80% or better) were pregnant by that time.

Association with Other Outcome Variables (YMP only)

As can be seen from Table 4, the outcomes of interest to those serving teenage mothers are not independent of each other. School status at 15 months showed the strongest association with remaining non-pregnant (Table 5). Those in school or graduated were less likely to be pregnant. Those who were not married also were less at risk for an additional pregnancy.

The difference in reproductive performance by educational status is readily understandable when the use of birth control by 15 months postpartum is compared with school status at that time (Table 6). Information both on the prescription of birth control at an early postpartum clinic visit and on its use at the time of the 15 month postpartum interview is available for 147 girls from the YMP study group. At the postpartum visit, some form of birth control was prescribed

Table 3—Relationship Between Attendance at Special School and Additional Pregnancy Status by 15 Months Postpartum (Only for YMP Participants With 15 Month Postpartum Interview)

	Subsequent pregnancies by 15 months postpartum					
Per cent of eligible days in attendance at special school	None		One or more		Total	
	No.	%	No.	%	No.	%
Less than 60%	51	(70)	22	(30)	73	(100)
60-79%	34	(89)	4	(11)	38	(100)
80-100%	24	(100)	—	—*	24	(100)

x^2 (df 2) 13.02

P .001

Table 4—Associations Among Outcome Variables at 15 Months Postpartum, YMP Participants With 15 Month Postpartum Interview. N=164[a]

	Status at 15 months postpartum			
Status at 15 months postpartum	In school or graduated	No subsequent pregnancy	Not married	Employed
No subsequent pregnancy	01	—	—	—
Not married	01	01	—	—
Employed at interview	05	05	N S	—
Independent of welfare	N S	05	-.01	01

[a] *Numbers are the probability of the association being due to chance. The variables were dichotomized, and the column headings and stub are labeled so as to indicate the direction of the association.*

Table 5—Subsequent Pregnancy Before 15 Months Postpartum by School Status and Marital Status (Only for YMP Participants With 15 Month Postpartum Interviews.

	Pregnancy status at 15 months postpartum					
Marital status and school status at 15 months postpartum	No subsequent pregnancy		Subsequent pregnancy		Total	
	No.	%	No.	%	No.	%
In school or graduated						
Married	7	(78)	2	(22)	9	(100)
Unmarried	77	(93)	6	(7)	83	(100)
Total	84	(91)	8	(9)	92	(100)
Dropped out						
Married	13	(50)	13	(50)	26	(100)
Unmarried	28	(62)	17	(38)	45	(100)
Total	41	(58)	30	(42)	71	(100)

Statistical Tests

Total school status against pregnancy status, corrected X^2 (d.f.=1)=23.40, $p < .001$

Total marital status against pregnancy status, corrected X^2 (d.f.=1)=8.18, $p < .005$

for 132 (90%) of these young mothers. By the time of the interviews, however, of the 57 girls who had dropped out of school, only 18 (32%) were still using a method of birth control, and 25 (44%) were pregnant again. The remaining 14 were neither using birth control nor pregnant. In contrast, of the 75 who had been prescribed contraceptives and who were still in school or had graduated, 57 (76%) were still using birth control, and only 6 (8%) had become pregnant again. These highly significant differences strongly suggest the possibility that the mere prescription of birth control is not sufficient to prevent subsequent pregnancies. The motivation and/or ability needed to remain in school also may be a crucial factor in the continued use of oral contraceptives.

Moving since delivery also was associated with a higher risk of rapid subsequent pregnancy. Only 11% of the non-movers reported a subsequent pregnancy at 15 months, compared to 37% of those who moved. The subsequent pregnancy rates are higher both for those who moved because they married and for those who, though unmarried, left their families.

Discussion

Rapid subsequent pregnancies among school-age mothers appear to be associated strongly with school status and with program participation. Since almost as strong an association was found between school status at two months and 15-month pregnancy status as between school status at 15 months and pregnancy, the association between pregnancy and school attendance was not due to the new pregnancy or baby keeping the mother at home. A later pregnancy could not have caused the school status more than a year earlier.

Table 6—Use of Contraceptive at 15 Months Postpartum by School Status (Only for YMP Participants for Whom Contraceptives Were Prescribed at a Postpartum Visit)

School status at 15 months postpartum	Use of contraceptive at 15 months postpartum							
	Using contraceptive		Not using contraceptive but not pregnant		Pregnant		Total	
	No.	%	No.	%	No.	%	No.	%
In school or graduated	57	(76)	12	(16)	6	(8)	75	(100)
Dropped out	18	(32)	14	(25)	25	(44)	57	(101)
Total	75	(57)	26	(20)	31	(23)	132	(100)

* [illegible]

Moreover, the girls who experienced another pregnancy were eligible to return to the McCabe Center if they desired. These findings suggest that either the motivation to achieve an education or the information and values received in school, or both, influence the girls toward avoiding an early additional pregnancy.

It is clear that the mere provision of contraceptives, even in a special clinic, cannot be equated with success in teenage girls. Effective use of an oral contraceptive requires continuous, active participation on the part of the user, which appears to be related to the motivation required of those who continue in school. The Lippe's loop had limited application in the Young Mothers Clinic since it proved unsatisfactory to most of its school-age users. More recently the obstetricians in the Clinic have used other intra-uterine devices which appear to have a higher degree of acceptance among the current program participants.

Another possible explanation for the association between school continuation and avoiding a rapid subsequent pregnancy is the level of sexual activity. Schofield found that in England, those girls who were in school had significantly less sexual activity than those who had dropped out.[2] It is not clear that his findings can be easily applied to the urban situation in this country, but this may be another explanation for the association reported here.

Finally, although marriage may be viewed as the causal factor in the case of having another baby and/or dropping out, it also is possible that this association is not strictly causal; rather it may be that the major alternatives in lifestyle for girls who become pregnant while still of school age are: 1) staying single and going to school, or 2) marrying and dropping out. Similarly, the new mother who chooses to leave her parents, in the absence of a husband, also may be pursuing a lifestyle which will lead to subsequent pregnancies, probably out of wedlock.

The findings in this paper are similar to those in several other studies, most recently that of Siegel et al.[3] Their figures show a continuation rate for the pill at one year of only 48% for women who completed no more than the eighth grade. They found that surprisingly few factors assumed to be related to contraceptive use were actually predictive, other than demographic and educational variables. The demographic factors cited in Siegel's study were not relevant here because of the demographic homogeneity of the study group. Education, the other factor found important by Siegel's group, also emerged in this study as the most important predictor of contraceptive use and of avoidance of subsequent pregnancy.

Conclusions

Family planning services cannot be provided in a vacuum, especially to school-age girls. The prescribing physician must consider the motivation and life goals of each of his patients. These data suggest that the highly motivated, school-oriented girl will use oral contraceptives and will not become pregnant quickly, although an IUCD may be used if it is preferred by young mothers from this group. However, the young mother who is oriented toward marriage and/or is not interested in school probably will not continue to take the pill. In these cases the prescribing physician should consider inserting an IUCD if it is acceptable to her. Family planning for school-age girls must be part of a broadly based program of services that can assist these young mothers to define, and then achieve, both short and long term life goals, and effective prescribing must be based on a knowledge of such goals.

ACKNOWLEDGMENTS

We wish to thank Mrs. Brigitte A. Prusoff for her assistance in the preparation of this paper.

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Dr. Jekel is Associate Professor of Public Health, Yale University, New Haven, Connecticut. Dr. Klerman is Associate Professor of Public Health, Florence Heller Graduate School for Advanced Studies in Social Welfare, Brandeis University, Waltham, Massachusetts. Mr. Bancroft is Systems Programmer, Yale University, New Haven, Connecticut. This study was made possible by grant MC-R-090048 from the Maternal and Child Health Service, HSMHA, Dept. H.E.W. It is a revised version of material presented before the Maternal and Child Health Section of the American Public Health Association at the 99th Annual Meeting, Minneapolis, Minnesota, October 13, 1971.

EXHIBIT F

Reprinted from the December, 1972 American Journal of Public Health

Occurrence of subsequent pregnancies is often used to measure success or failure of programs for young mothers. This paper reviews methodological problems involved in measuring rates of subsequent pregnancies, proposes the use of a life-table method, and illustrates its use.

Subsequent Pregnancies Among Teenage Mothers Enrolled in a Special Program

John B. Currie, Ph.D.; James F. Jekel, M.D., M.P.H.; and Lorraine V. Klerman, Dr.P.H.

Introduction

How can the success of a service program for teenage mothers be judged? One of the goals, sometimes only implicitly acknowledged, is the reduction or postponement of subsequent pregnancies of the school-age girls who enroll in special programs. Yet very little is now known about the comparative success of various programs in delaying so-called repeat pregnancies, partly because of the lack of reporting of analyses of comparable data. This paper will review the methodological problems involved in the measurement of rates of subsequent pregnancies, will propose the use of a life-table method as an appropriate measure, and will illustrate its use with data from New Haven.

Material

The larger study of programs for teenage mothers, of which the consideration of subsequent pregnancies is one segment, was designed as a prospective study involving 180 girls who registered in the special Young Mothers Program (YMP) Clinic at the Yale New Haven Hospital during the period from September 1967 through June 1969. Follow-up information has been gathered for a minimum of two years after delivery.

Comparable data on subsequent pregnancies are available from two other samples: 1) a control group of 83 patients from the obstetrical clinics of the Yale-New Haven Hospital who delivered during the period October 1963 through March 1967, prior to the inception of YMP clinic, and 2) a group of girls who registered in the YMP clinic from September 1965 through August 1967, and who were the subject of a previous retrospective study,[1] hereafter referred to as "YMP Retrospective." The composition and comparability of these various samples are described elsewhere[2] and will be referred to in the discussion which follows.

Definitions

Careful definitions of the phenomena under consideration are of utmost importance, especially if a measure of comparability among programs is an aim of the study. First, the characteristics of the participants must be described, since it would be misleading to compare the outcomes of several groups without taking into account their differing compositions. For example, the 180 "research eligible" participants in the YMP, although they were all under 18 and single at registration, included 12 girls who had had at least one previous pregnancy. These girls might be excluded in other programs dealing only with primiparae. The date of entry into the YMP was taken to be the first visit to the special clinic for teenage pregnant girls at the Yale-New Haven Hospital. Two girls had early miscarriages after their entry into the program, and were excluded from the research eligible sample. Thus, the 180 participants are not a sample of the population of single girls, 18 and under, who became pregnant, but only of a sub-population which fulfilled certain criteria of research eligibility for a particular study.

What is the definition of a subsequent or repeat pregnancy?* Is the important question pregnancy *per se*, or delivery? This depends on the goals of the program. When considering the health and well-being of the girl, as well as the measurement of efficacy of contraceptive measures, the primary interest is in the subsequent pregnancy, regardless of outcome. From the viewpoint of decreasing the burden of the care of another infant on both the girl and society, the primary interest is in live deliveries. What is the place of therapeutic abortion? Should it be classified as a successful form of birth control, albeit an inefficient and expensive one?

Is age at the time of the subsequent pregnancy a matter of importance? Should the marital status of the mother at the time of the subsequent pregnancy or delivery be entered into the equation, i.e., is it not "recidivism" if the mother is now married? The common concern only with illegitimate births in this population seems simplistic in view of the age of the young mothers, the instability of marriages among the young, and the matrix of social, economic, and personal problems which often underlie the lives of participants in such programs.

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* The term subsequent, meaning subsequent to the index delivery, is used in preference to the terms repeat or recurrent, since some members of the original group were not primiparae, i.e., they were already "repeaters." Also it is felt that "subsequent" is a less judgmental term than "repeat."

These questions are posed to indicate that unless procedural definitions are made clear, the data are not clear; and unless goals are agreed on, the data cannot be interpreted in terms of the success or failure of a program. The discussion which follows, and the data presented, are not intended to prejudge the questions above, or to exhaust the possibilities of analysis.

Some Measures of Subsequent Pregnancies

Of the 179 YMP participants at risk for repeat pregnancies,* 109 (60.9%) had terminated at least one subsequent pregnancy at the time hospital charts were reviewed in the early Spring of 1972. An additional 2 were known, from information given in the hospital chart or at interview, to be pregnant but had not yet delivered. Twenty-three of the above 109 had two completed pregnancies subsequent to the index delivery, 12 had three subsequent terminations, and one had four.

Age at the first subsequent termination ranged from 14 to 21, with a median age of 18. Thirty-three of the 109 (30.3%) were married before the time of the first subsequent termination, although some were separated or divorced from their husbands. Table 1 indicates that there is no clear relationship between age and marital status at the time of the subsequent termination.

Table 1—First Subsequent Terminations of Pregnancy among 179 YMP Participants: Age at Termination, by Marital Status

Age at subsequent termination	Total	Marital status Single	Married
14	1	-	1
15	5	2	3
16	7	7	-
17	29	21	8
18	34	24	10
19	21	15	6
20	11	6	5
21	1	1	-
	109	76	33

The following rates might be calculated from this data: 109 of the 179 YMP participants had terminated at least one pregnancy subsequent to the index delivery (61%), and there were 159 terminated pregnancies (89%). Clearly these "rates" do not provide a useful summary of subsequent pregnancy (or delivery or termination) experience since they depend on the time at which the information is gathered, and do not take into account the varying lengths of time that individual participants were at risk of becoming pregnant.

The need for standard and meaningful ways of expressing such subsequent events led Dempsey[3] to propose the following rate:

$$\frac{\text{Number of repeat out-of-wedlock deliveries}}{\text{Total number of out-of-wedlock deliveries}} \text{ per 24 months after the index delivery}$$

The population at risk (the denominator) is assumed to be composed of adolescents in a program who have had a first out-of-wedlock delivery. (There is [illegible] theoretical reason why the denominator might not inclu[illegible] those who have delivered at least once out-of-wedlo[illegible] to accommodate multiparae.) The numerator consists of a[illegible] (subsequent) out-of-wedlock deliveries among the population enumerated as at risk in the denominator.†

This rate may be applied to the YMP prospective sample. For example, by the end of June 1971, 160 of the 179 YMP participants had completed a period of two years since index delivery. Included among these were 9 who were not primip[illegible] at the index delivery and 5 who married before the [illegible]x delivery, although single when they registered for t[illegible]rogram. An additional 9 were lost to follow-up before the end of two years. Thus the denominator is reduced from 160 to 137.

Marriage further reduces the number at risk. Dempsey says that "adolescents who marry before the recurrent event should also be dropped from the denominator."[3] Consistency requires the removal also of those who had no recurrent event of delivery, but who married before the end of the follow-up period. Of the 137, 17 were married before the termination of a subsequent pregnancy, and an additional 20 who had not yet delivered again were married within 24 months of the index delivery. Consequently, the denominator has now been reduced to 100. Thirty-eight of these had a repeat delivery within 2 years of the index delivery, and 62 did not, so the rate of recurrent terminations according to Dempsey's criteria is 38/100, or 38.0 per cent over a 24 month period.

These 38 pregnancies resulted in 26 live infants (24 full-term and 2 premature). The remaining 12 consisted of 2 neonatal deaths, 1 stillbirth at 30 weeks gestation, 6 spontaneous abortions at less than 20 weeks, and 3 therapeutic abortions. Thus from the point of view of illegitimate children produced, the rate might be said to be 26/100, or 26 per cent.

The Life Table Method

Since one of the purposes of the analysis of subsequent pregnancies is to aid in the evaluation of ongoing programs, it is useful to provide a method which can give some measurement before all participants have been followed a given length of time, such as 24 months after delivery. There is also an interest in time relationships involved, e.g., how soon after the index pregnancy are these subsequent pregnancies taking place? A summary rate such as that proposed by Dempsey gives only one cross-sectional slice of a continuous process.

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* One participant had a hysterectomy during hospitalization following the birth of the index infant and thus was not at risk for subsequent pregnancy.

† For additional details and reasoning, consult the cited paper.

Rates based on the life table approach appear to be suited to a study in which members enter at various times and have differing lengths of time of follow up. They have been developed and used elsewhere in epidemiological situations, such as the analysis of survival after diagnosis and treatment of cancer,[3,5] the study of mental hospital and psychiatric clinic populations,[6,7,8] and measurement of contraceptive effectiveness.[9] Among the advantages of this method are 1) presentation of data in a longitudinal aspect so that analysis can be carried to any desired point and rates at successive periods of time can be made visually meaningful by means of graphs, and 2) ability to use information about all participants in a program, regardless of length of follow-up.*

In order to have known time points for the calculation of the table, the event of interest is considered to be termination of pregnancy rather than the beginning of pregnancy. The latter (i.e., conception) can be used, but involves some assumptions about length of gestation, especially for cases which did not terminate in an infant of the normal maturity. Only first subsequent terminations are considered, for convenience called "terminations."

Starting with a cohort of 179 YMP participants at index delivery, each is allocated to the appropriate interval at the time of either of two events: 1) first termination subsequent to index delivery or 2) most recent date known not to have had a termination (i.e., date of last follow up). Those who have terminated a pregnancy are assigned to the "d_x" column. Those who are known not to have terminated a pregnancy, and those who are lost to follow-up, appear in the "w_x" column, which means they are withdrawn from the table at the interval which specifies the time between index delivery and the latest date on which information is available. For each interval, the proportion who terminated during the time interval is calculated ("q_x" column) using as the denominator the "effective number at risk." The latter is equal to those who had not terminated at the beginning of the interval, less one half of the number withdrawn or lost during the interval. Multiplying these interval probabilities (p_x) together results in the cumulative rate, which in the traditional life table is the "cumulative proportion surviving" (P_x), but here is interpreted as the proportion of those who remained without a subsequent pregnancy termination through a given time after index delivery. The complement of this may be regarded as the rate of subsequent pregnancy termination.

Findings Using the Life Table Method

Thus for the YMP data in Table 2, the two-year rate of subsequent termination is 39 per cent, i.e., 100 (1 − .61). Rates for other intervals are easily obtained. For example, the 21-month rate, mentioned by Dempsey as a possibly more useful time interval, is 31 per cent. Table 3 gives the cumulative proportion without subsequent terminations at various times after index delivery, for the YMP (Prospective) group and two other samples—the Control group and the YMP Retrospective group. A graph of the samples is given in Figure 1. Like all statistics on a group which is regarded as a sample of a larger population, the rates are subject to an amount of random error which depends to a large extent on the size of the group, or more accurately on the "effective number" at risk. The standard error is shown for the rates at selected intervals in Table 3.

Comparison of the life-table data shows that there is a significant overall difference in "survival" curves between the Prospective and Control samples, and between the Retrospective and the Control samples. Using the Mantel-Haenszel procedure,[10,11] Chi-square values (with 1 d.f.) of 4.7 ($p < .05$) for the former, and 15.1 ($p < .001$) for the latter, are obtained. The Retrospective YMP group has consistently higher rates of those without subsequent terminations than the Prospective YMP group, but the overall difference is not statistically significant. The YMP Retrospective group begins differing markedly from the Control after about one year following index delivery, and this difference is sustained beyond three years. The curve for the YMP Prospective group, although on the whole significantly different from the Control, seems to be proceeding approximately parallel to that of the Control group after about 18 months. After 33 months, the curve for the Control group levels off, but that for the Prospective group continues at its previous rate. Since almost all of the information on which the present comparison is based comes from the records of one hospital, there should be no bias favoring one group over another, assuming comparable chart recording of such events as early terminations at the different time periods involved.

Table 3 and Figure 1 show the difference in the rapidity with which the three study populations lost their status of having no subsequent terminations. There are no major differences between the three groups by nine months following the index delivery, when termination would indicate an abortion or premature birth. However, between 9 and 18 months, there was a marked difference between the Control group on the one hand, and the other 2 groups on the other. By 18 months postpartum, almost half of the Control population had terminated a subsequent pregnancy, whereas less than one quarter of the Retrospective and Prospective groups had. However, after this point, both the Retrospective and Prospective populations have a somewhat higher rate of subsequent terminations, and by 39 months postpartum the differences between the three groups are considerably less marked. The differences between the Retrospective and Prospective groups are consistent, but less striking, with the Retrospective group showing a lower rate of subsequent terminations than the Prospective group. The possible reasons for these differences will be discussed below.

Two other life-table calculations were made for the Prospective study group (Table 4). First, the rate of repeat terminations was calculated omitting the therapeutic abortions (i.e., considering that those who had therapeutic abortions did not have a completed pregnancy—that this was, in effect, a contraceptive method). This calculation, of course, lowers the rates of subsequent terminations; for example, the 30-month rate of subsequent terminations is some 6 percentage points lower if therapeutic abortions are not included as terminations (50% = 100 (1 − .50) vs. 56% = 100 (1 − .44)).

The other calculation in Table 4 bases the d_x column on conception rather than termination of pregnancy.

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* In a paper published while the present report was in preparation, Dempsey and [illegible] discuss the life table method and apply it to outcomes of marriage and educational status in a group similar to that described here.

Table 2—Probability of Having No Subsequent Termination of Pregnancy (Life Table Method) YMP Prospective Participants

Months after index delivery	No subseq. termination at beginning of interval	Termination during interval	Withdrawn not terminated during interval	Effective number exposed to risk	Probability of termination during interval	Probability of remaining not terminated during interval	Cumulative probability of remaining not terminated*
	(l_x)	(d_x)	(w_x)	(l'_x)	(q_x)	(p_x)	(P_x)
0-3	179	0	1	178.5	0.000	1.00	1.00
3-6	178	1	0	[illegible]	0.006	.994	.994
6-9	177	5	0	177.0	0.028	.972	.966
9-12	172	10	0	172.0	0.058	.942	.910
12-15	162	10	2	161.0	0.062	.938	.854
15-18	150	12	4	148.0	0.081	.919	.784
18-21	134	15	6	131.0	0.115	.885	.694
21-24	113	14	5	110.5	[illegible]	.873	.606
24-27	94	7	10	89.0	0.079	.921	.558
27-30	77	16	8	73.0	0.219	.781	.436
30-33	53	5	12	47.0	0.106	.894	.390
33-36	36	4	4	34.0	0.118	.882	.344
36-39	28	4	10	[illegible]	0.174	.826	.284

* at the end of the interval

The date of conception was estimated utilizing the birth weight of the infant or, for early terminations, the physician's assessment of duration of gestation, and other information gathered from the hospital or clinic record. If all conceptions terminated in full-term births, the curves based on conception and termination would be parallel, with the only difference a displacement of 9 months on the time axis. When plotted on a graph (Figure 2) it can be seen that conceptions began early following the index delivery and the cumulative proportion without subsequent conception gives a much smoother curve than that shown by terminations. This procedure has, however, the disadvantage of being based on an estimated date.

Table 3—Cumulative Proportion without Subsequent Termination of Pregnancy, at Specified Months after Index Delivery

Months after index delivery	YMP Prospective	Control	YMP Retrospective
3	1.00	1.00	1.00
6	0.99	0.99	1.00
9	0.97	0.96	0.99
[illegible]	0.91	0.90	0.95
15	0.85	0.70	0.90
18	0.78 ± .031	0.57 ± .056	0.86 ± .034
21	0.69	0.53	0.81
24	0.61 ± .038	0.47 ± .057	0.71 ± .045
27	0.56	0.39	0.64
30	0.44 ± .041	0.34 ± .054	0.53 ± .052
33	0.39	0.26	0.52
36	0.34 ± .042	0.25 ± .04[illegible]	0.47 ± .054
39	0.28	0.23	0.43

Figure 1—Cumulative Percentage without Subsequent Termination of Pregnancy at Specified Intervals after Index Delivery; Comparison of Three Samples

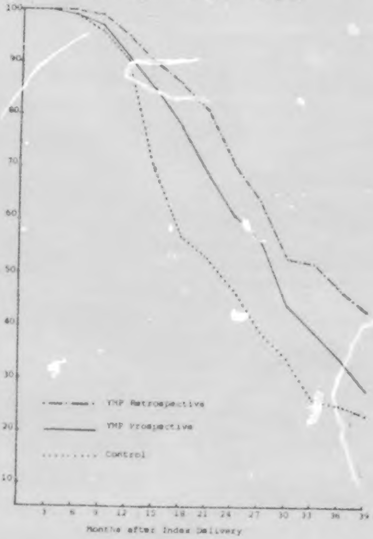
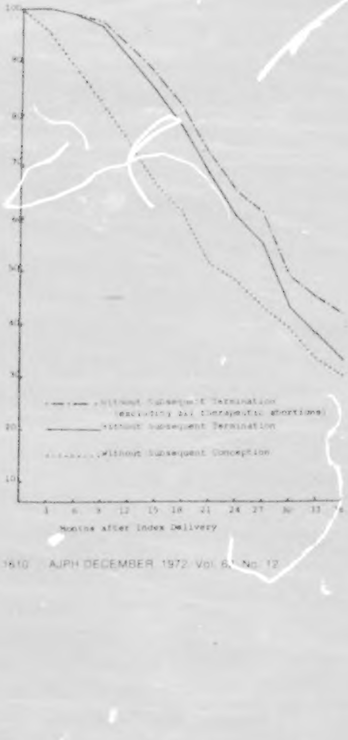


Table 4—Cumulative Proportion in YMP Prospective Group at Selected Times with 1) No Subsequent Termination of Pregnancy, 2) No Subsequent Conception, and 3) No Subsequent Termination of Pregnancy Omitting Those with Therapeutic Abortion.

Months after index delivery	No termin. of pregnancy	No conception	No termination (omitting therapeutic abortion)
3	1.00	0.96	1.00
6	0.99	0.89	0.99
9	0.97	0.82	0.98
12	0.91	0.75	0.93
15	0.85	0.67	0.88
18	0.78	0.62	0.82
21	0.69	0.52	0.73
24	0.61	0.49	0.66
27	0.56	0.44	0.62
30	0.44	0.40	0.50
33	0.39	0.34	0.46
36	0.34	0.31	0.43

Figure 2—Cumulative Percentage Remaining at Specified Intervals after Index Delivery, YMP Prospective Group



One advantage of the life-table method for evaluating an ongoing program is illustrated by the following. An earlier calculation made by the authors after only 54 of the participants had terminated a subsequent pregnancy gave a two year rate of 36 per cent. The present calculation, based on 109 terminations, changed this only slightly (to 39%). Therefore, utilizing available information on all participants, rather than only on those who have actually completed a two year follow-up period, makes possible an early, and reasonably accurate, estimate.

Discussion of Life Table Comparisons

Two factors may account for the lower rate of subsequent terminations among the YMP Retrospective group: 1) differences in the nature of the programs between the 1965-67 period and the earlier (Control, 1963-65) and later (YMP Prospective, 1967-69) periods and/or 2) selection of the participants in the YMP Retrospective group.

The YMP Retrospective sample participated in an intensive medical program. The obstetrical resident who developed the YMP gave them personalized care, delivered most of the babies himself, and attempted to maintain long-term communication with the mothers. He stressed the importance of family planning in enabling mothers to finish school. The YMP Retrospective sample probably received more personalized service than the Prospective YMP sample and this personalized contact in some cases continued for a number of years. This may explain not only the greater delay before subsequent pregnancies occurred, but also the higher proportion of girls who have had no subsequent pregnancy. The YMP Prospective sample initially delayed subsequent pregnancies, but by 18 months postpartum the effect of the program appeared to diminish, and the proportion of patients with subsequent deliveries was increasing at about the same rate as that of the Control group.

It must be noted, however, that the Control group is composed of all patients enrolled in the Yale-New Haven Hospital obstetrical clinics between Oct. 1963 and March 1965 who were 17 or under, single and residents of New Haven at registration and who delivered at the same hospital after 20 weeks gestation. The YMP Prospective sample met the same criteria as the Control with the additional requirement of registering in the special YMP clinic. Only 11 per cent of girls registering for obstetrical care at Yale-New Haven Hospital during the intake period for the Prospective group received care in a clinic other than the YMP clinic. The YMP Retrospective sample includes the patients enrolled in the program from its inception, including 18-year-olds. A review of hospital admissions has shown that a larger proportion of patients who met the present Prospective intake criteria did not receive care in the special (Retrospective) clinic. This might have had an effect on the rates of subsequent pregnancies.

One major difference between the Control group and the two YMP groups was that contraceptive advice and prescription was illegal in Connecticut until the summer of 1966. This fact obviously makes the earlier group a less than ideal control for the study of subsequent pregnancies. It is impossible to determine what portion of the differences observed may have been due solely to the greater availability of contraception since 1966.

Summary

The occurrence of subsequent pregnancies is often used as a measure of success or failure in programs for young mothers. The importance of accurately defining the event being measured and its relation to the goals of the program have been discussed.

The life-table method of presenting data on subsequent pregnancies is discussed. The two-year rate of subsequent pregnancy termination (without regard for legitimacy) is 39 per cent for the YMP group compared to 53 per cent for a Control group receiving no special attention and 29 per cent for a previous group in the YMP which received a more personalized pattern of care. The life-table method appears to have many advantages for ongoing studies.

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ACKNOWLEDGMENT

The authors gratefully acknowledge the assistance of Natalie C. Tyler in the preparation of this manuscript.

Dr. Currie is Assistant Professor in Biometry and Dr. Jekel is Associate Professor of Public Health, Department of Epidemiology and Public Health, School of Medicine, Yale University, New Haven, Connecticut. Dr. Klerman is Lecturer, Heller School for Advanced Studies in Social Welfare, Brandeis University, Waltham, Massachusetts. The study described in this paper was supported by Grant H-211 from the Maternal and Child Health Service, Department of Health, Education, and Welfare. This paper was submitted for publication in June, 1971.

Mrs. SHRIVER. Senator, I think it is important to have teachers in the school system that accept these girls and have a system in which infant care is provided by people who are very much interested in the offspring of the girl. The idea is that the school system accepts the girl rather than rejects her as has been the tradition.

Our next speaker will be Janet Forbush.

Senator KENNEDY. The administration, I gather, feels they are already doing a job. From your point of view, from the people in the firing line, I take it that you can testify quite effectively that the program is not working and that the magnitude of this particular issue is growing.

And you believe from your own experience that the kind of coordinated approach, in trying to bring together the resources available under programs which the administration has made, that these programs really effectively do the job, and that this has been the practical experience.

You heard the administration say, first of all, we are doing what needs to be done, and we do not believe it can be done any better, and that even if it could be done the way you have outlined it, the statistics show it does not really make much difference in any event.

I am unwilling to accept their thesis. I believe we have got people here who have seen the effects of this approach, and know why it is not so.

We hope as a result of the record that we are able to develop in this panel, that we can go back to the administration and say, look, whoever you have been talking to or listening to is not in the real world, because the people with training, experience and commitment can show that when you do provide this kind of consolidated approach, you can make a difference.

So, proceed.

Ms. FORBUSH. I think it would be best for me to offer our comments in response to points raised earlier by the administration.

I react particularly to the statement on the part of the administration representatives regarding the eligibility which already exists in current title programs.

In view of the stated purposes of the act, the alliance would suggest that in addition to those already outlined in the bill, we could improve on the bill by adding another purpose to read as follows:

> To improve the knowledge base regarding the incidence and consequences of school-age parenthood through increased support of research projects and local program efforts.

As a point of reference here, it would perhaps be illustrative to share with the committee the fact that the alliance receives approximately 250 requests per month for information on various aspects of school-age parenthood. The requests come from all over the country and from people in many different disciplines.

Most of the requests fall into two categories: (1) information and/or supportive data to document results of school-age parent crisis intervention programs in the short and long term; and, (2) program material which can be used by staff in school-age parent programs.

The limited research done to date in this field does not provide a sound basis on which to make judgments, generalizations, and/or predictions about the population and program direction. Further, we are still without any substantive program information regarding the consequences of school-age parenthood for youngsters in rural communities.

As a third point of concern with respect to the design of the bill as it now reads, we note that the grants which could be made to "designated State agencies" would not necessarily require equal involvement on the part of State departments of public instruction, health, and social services.

It has been our experience over the past 5 years in the planning and implementation of many statewide conferences on school-age parenthood that whereas it is possible to develop coordinated plans for the delivery of services, whether for a statewide conference or a local training program, nonetheless, if a lead agency role is given to the health department at the State level, it is likely that the State Department of Public Instruction will view this issue as a less than critical problem and will respond accordingly. The same would be true were the responsibility given only to State education agencies. Local school districts are the only institutions which by law automatically have ready access to school-age parents. We would urge, therefore, whatever State agency and/or private, nonprofit corporation is designated as the recipient of the funds, that there be a requirement that the State education agency be involved in the development and implementation of a State plan.

Another question which we raise is whether or not State agencies are appropriate units to receive the funds, provided for in S. 2538. Recognizing that there are school-age parent advocacy organizations and/or ad hoc task forces organized at the local and State level in 26 States, it is suggested that they be reviewed carefully as primary receivers of the funds.

Since the genesis of school-age parent programs has been the result of local, community activity rather than State activity, perhaps these advocacy organizations could better serve the interests of the school-age parent and the State agency representatives.

It would, of course, be possible to ascertain those States where there has been evidence of support for school-age parent programs and further to document how that support has been translated into action at the local level. In those States where this cannot be demonstrated and where there are no State advocacy groups, one might consider awarding funds to local or regional groups.

Recognizing the inherent difficulty in gaining administration support for a bill of this nature, the alliance would like to point out that this is the only measure which clearly and specifically provides eligibility to young parents for comprehensive services.

Despite the existence of other programs under titles V, XIX, and XX of the Social Security Act, titles IV and X of the Public Health Service Act, and title I of ESEA, none of these specifically provides eligibility for school-age parents. This is a significant weakness and needs to be recognized since it is of great concern to school-age parent program operators. I quote from "A Study of Services for Adolescent Parents" a report by the Community Service Council of Greater

Tulsa (Tulsa, Okla.), published in April of this year, which reads:

> Agencies state that inadequacy within their own services delivery can be attributed to a half-dozen factors: eligibility guidelines which are too low; poor outreach and follow-through for the clients; a need for more specific services, such as teen clinics, teaching programs, and emergency needs services.

It is impossible for us to be optimistic about the use of existing programs for the young parents we represent. We know that children and youth are not, by any stretch of the imagination, receiving a proportionate, or fair share of funds presently expended for health care.

As reported by Helen M. Wallace, M.D., M.P.H., and Hyman Goldstein, Ph. D., in their study entitled, "Child Health Care in the United States: Expenditures and Extent of Coverage With Selected Comprehensive Services." Pediatrics, Vol. 55, No. 2, February 1975, we know that children and youth under 19 years of age represent 36.9 percent of the total population in the United States, and yet they receive less than 20 percent of the expenditures for health care.

Of equal importance is the fact that these services, as evaluated by our young parents, themselves, are rarely designed for them in order to meet their needs.

Therefore, to underscore a particular strength of S. 2538, it is the eligibility for service granted to school-age parents.

I would like to digress for a moment and share with you data provided to us by the HEW interagency task force on comprehensive programs for school-age parents.

The task force provided this information shortly before the NACSAP—National Conference on School-Age Parenthood held in Denver in October. We had requested data which would demonstrate the extent to which various agencies within HEW were presently funding programs specifically for young parents.

The Indian Health Services Branch reported that in fiscal year 1972 they spent $12,841, which paid for one social worker in one of their offices.

And as of fiscal year 1975 they were spending $11,436, which was, in fact, for a position at a slightly lower level.

The National Institute of Education, USOE, reported that they have not as yet authorized or spent any money in the research on the consequences of adolescent parenthood.

The Early Childhood Branch, USOE, reported in fiscal year 1974 an expenditure of $195,709. That was for a single project in the State of Indiana. In fiscal year 1975 the same project received $203,135.

I think this illustrates that there is no clear pattern regarding this field as a funding priority. Another example is available in a report from NICHD on expenditures for research on adolescent pregnancies during fiscal years 1971 through 1975. In 1971, for example, the total was $392,051. In 1972 it went down to $94,000, and in fiscal year 1973, down again to $52,000. Support went up in 1974 to $104,000, and then in 1975 to $329,000. Again, no clear pattern for support.

In terms of the recommended representation on the State advisory council proposed in S. 2538, the alliance would suggest that inasmuch as possible, the recipients of the funds would be required to involve representatives from existing school-age parent program operations including administrators, staff, and consumers.

Just as we recommended that the State education agency be required to be involved in the development and implementation of the plan, so should a local educator.

We feel this balance is needed since there is considerable variation between State and local policies and the ways in which policies may affect continuing educational opportunities of school-age parents reflect that difference.

Special attention should also be given to the representation from rural areas on the advisory council. The differences between the quantity and quality of services available in rural communities versus urban areas have been recognized but are not presently addressed.

With respect to the length of time during which support would be available for comprehensive services, the alliance has found that more and more program people are reporting the fact that serious problems develop for young parents as long as 2 years after the birth of their child.

This points out the need for sustained, intervention services. This can admittedly be costly. However, it is less costly if provided for in a prevention oriented program rather than in treatment—after the problems develop into crises.

Despite the fact that the total amount of funding provided for in S. 2538 is recognizably small, given the size of this problem nationally, in order to determine what the long-range outcome of services intervention can be, applications should be entertained from existing programs for funds which could be used in sustained followthrough services. It is suggested that a least one and no more than three programs in the State be provided with funding of this type. Any more money directed toward that end would, of course, substantially limit the resources available to communities presently offering no support services for school-age parents.

As a concluding point, the alliance commends Senator Kennedy, his staff and others involved in the development of this bill for recognizing the need to incorporate a maintenance clause. Recent history has shown that some special interest programs have been started without taking into account the fact that new legislation could jeopardize present funding levels. In our own experience as a minimally, funded national association, we have had to operate on what we consider a much more cost effective basis than other programs funded at perhaps 10 times our level.

Our experience at the national level has been duplicated by local program operators.

Therefore, whereas $30 million is not going to solve the problems related to adolescent parenthood in this country, I am confident that authorization and eventual appropriation of these funds would have the potential for impact of an authorization much larger given the capabilities of the people in this field. I am indeed saying that we have had to make small amounts of money go a long way.

We are the only national organization receiving assistance from a variety of HEW agencies expressly in the areas of technical assistance.

Our current level is $90,000 per year.

As of March 1975 the only other national organization in this field was closed and it was closed in part due to the lack of support from the Federal Government.

Thank you.

Senator KENNEDY. Thank you.

[The prepared statement of Ms. Forbush along with additional material supplied follows:]

nacsap

National Alliance Concerned with School-Age Parents

7315 WISCONSIN AVENUE, SUITE 211-W
WASHINGTON, D.C. 20015
(301) 654-2335

Research Division
804 UNIVERSITY AVENUE, 2nd FLOOR,
SYRACUSE, NEW YORK 13210
(315) 423-3595

November 3, 1975

Senator Edward M. Kennedy
Chairman, Senate Subcommittee on Health
4228 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Kennedy:

Pending before your committee is the National School-Age Mother and Child Health Act of 1975 (S. 2538). Enclosed you will find testimony which I am offering on behalf of the Board of Directors and members of the National Alliance Concerned with School-Age Parents with respect to the proposed legislation. I am also sending along a copy of the resolution developed at the National Conference on School-Age Parenthood held in Denver, Colorado, in October, commending you for your work in the draft of the legislation.

Supporting documents as well as a copy of my personal c.v. have also been included in this correspondence. I am hopeful that all of the information will be of assistance to you and the staff of the Subcommittee. Should you need additional background, please contact me at your convenience. You will note that my testimony has been developed along four lines--- a general overview of comprehensive service programs for school-age parents; summary of the needs of young parents; summary of the needs of program personnel; and, direct comments regarding the proposed legislation.

Thank you for your involvement in this field. The Alliance looks forward to working with you in seeking passage of S. 2538.

Sincerely,

Janet Forbush

Janet Forbush
Executive Director

enclosures

nacsap

National Alliance Concerned with School -Age Parents

7315 WISCONSIN AVENUE, SUITE 211-W
WASHINGTON D.C. 20014
(301) 654-2335

Research Division
804 UNIVERSITY AVENUE, 2nd FLOOR,
SYRACUSE, NEW YORK 13210
(315) 423-3595

Statement on S.2538 National School-Age Mother and Child Health Act of 1975

Respectfully submitted to the Senate Subcommittee on Health chaired by Senator Edward M. Kennedy (D-Massachusetts) offered on November 4, 1975, by Janet Bell Forbush, Executive Director, National Alliance Concerned with School-Age Parents. (Attachment A)

INTRODUCTION

On behalf of the Board of Directors and members of the National Alliance Concerned with School-Age Parents (NACSAP), I wish to begin the statement by recognizing and commending Senator Edward M. Kennedy and also Senator Birch Bayh (D-Indiana) for their work in drafting legislation on behalf of school-age parents and their children. NACSAP also wishes to take this opportunity to extend its deep appreciation to Mrs. Eunice Shriver for her outstanding work on behalf of the hundreds of thousands of school-age parents who so desperately need quality health, education and social services. The initiatives of the Senators, their staff members and Mrs. Shriver are already being felt as positive catalysts in the field of services delivery to this population.

NACSAP is a private, non-profit membership association organized in 1969. The organization specializes in the provision of technical assistance to health, education, and social service professionals as well as local and state agency personnel interested in improving services delivery to young parents and their families. Technical assistance includes distribution of print and non-print resource materials; on-site program consultation; in-service training; conference support; and information sharing at the national level. The Alliance is governed by a fifteen member Board of Directors, thirteen of whom are elected by general membership vote (Attachment B). Two positions are appointive and as a result of Board action taken in October of this year, one of the Board positions has been designated for a youth representative. The Alliance has nearly 1,100 members in 48 states with active affiliates in:

California	(California Alliance Concerned with School-Age Parents - CACSAP)
Florida	(Florida Alliance Concerned with School-Age Parents FACSAP)
Michigan	(Michigan Association for School-Age Parents - MASAP)
Ohio	(Ohio Alliance Concerned with Teenage Parents - OACTAP)
Oregon	(Oregon Alliance Concerned with School-Age Parents - OACSAP)
Louisiana	(Louisiana Alliance Concerned with School-Age Parents LACSAP)

Washington (Washington Alliance Concerned with School-Age Parents - WACSAP II)
Wisconsin (Wisconsin Alliance Concerned with School-Age Parents - WACSAP)

Active membership has quintupled since May of 1973.

NACSAP's funding comes from three principle sources: individual membership dues, government contracts and/or grants, and private contributions. The present government support is a $90,000. contract from the U.S. Office of Education (Contract OEC-0-7320).

The comments which I am offering today have been organized so as to provide an overview of the types of service programs which have been developed and are now in operation in over six hundred communities in this country; a review of the needs of young parents as identified through comprehensive service programs and association activities; consideration of staff and program needs presently unmet as a result of limited and inappropriate funding; and, specific comments regarding S.2538.

SECTION A - OVERVIEW OF COMPREHENSIVE SERVICE PROGRAM OPERATIONS

As the only multi-disciplinary membership organization in the country specializing in this area, NACSAP works closely with local and state groups throughout the United States presently offering some type of support service(s) to young men, women, and their children. In some communities the programs have been in existence since the mid-sixties, e.g. San Francisco, California; Milwaukee, Wisconsin; and Baltimore, Maryland. These communities were in the vanguard of a new social change phenomenon---a change from historically punitive treatment of women who became pregnant while still single to a positively oriented intervention process. This is not to say that the programs were neccessarily influential in changing community attitudes either then or in 1975. Rather, they were the result of individual activists who felt strongly that it was possible and essential to attempt to resolve the problems associated with early parenthood. Specifically, adolescent parenthood.

When the first community based programs were established, they were designed to incorporate three aspects of human service intervention---health, education, and social services. It is important to point out that some communities developed projects which were unable to offer all three services to adolescent parents. In communities where comprehensive service programs were started, the program base varied according to the availability and accessability to existing community resources. In the city of Baltimore, for example, the program was education based with linkages developed with area health and social service agencies. In San Francisco, the program was health based and eventually expanded to seven area service centers associated with hospitals in the San Francisco metropolitan area. Cleveland, Ohio, used a social services model and operated its'beginning program with substantial support from the Cuyahoga County Welfare Department. It is important to underscore the fact that all of the programs mentioned included formal linkages with the other service components.

Since that time, school-age parent programs have expanded in recognition of additional needs on the part of young parents and their children. For example, efforts have been made since the early seventies to provide infant care as an additional component of comprehensive service programs. It is well known that school-age pregnancy is the single greatest cause of school drop-outs among young women. It is less well known that without adequate infant care following the birth of their babies, young mothers are often forced to drop out of school. Less than 1% of the 17,000 school districts presently offer these critically needed services. In response to this problem in California, former Governor Ronald Reagan signed into law California Senate Bill 1860 authorizing $600,000. for local school districts providing support for infant care services on high school campuses. California is the only state with such a law presently in effect, however, other states are reviewing this issue. This particular component of a comprehensive service program is especially difficult to fund, however, and additional resources such as those potentially available through the proposed legislation would help to reduce the number of school drop-outs.

Other components emerging as elements of comprehensive service programs since 1970 include transportation for young parents and expectant parents to their school programs; follow-through counseling extended to as late as two years after the birth of the child; special outreach services to counsel young men involved in school-age pregnancies; and, provision for in-service training of professional staff working in school-age parent programs. These efforts are not typical but rather unusual!

One of the practical considerations affecting school-age parent program operations has been the location and quality of the facility. Though the facility is not a component of a program in terms of what is being made available to the client, nonetheless, the facility is key in terms of its accessability and appropriateness to the young parent. To date, only the Baltimore City School System has developed plans for construction of a center for school-age parents which would accommodate the unique needs of young mothers, their husbands and/or boy friends, and children. Meanwhile many of the comprehensive service programs which have been mentioned are housed in less than optimum facilities. Others are in unacceptable locations.

The various comprehensive service program models which emerged in the sixties provided a foundation for a nationally oriented approach to the field. One of the results of this phenomenon was increased attention to the needs of the school-age parents on the part of the federal government. In 1971, then Secretary of the Department of Health, Education, and Welfare, Elliot Richardson, approved an action memorandum calling for the establishment of an Inter-agency Task Force on Comprehensive Programs for School-Age Parents. Lead agency responsibility for the Task Force was vested in the U.S. Office of Education. The life line of the Task Force was originally intended to be three years, however, it is still in existence and operating on an informal level. The Task Force was originally established to monitor and oversee activities of the only two field units operating in this area---NACSAP and the Consortium on Early Childbearing and Childrearing (CECC). The Consortium, which operated under the aegis of the Child Welfare League of America, closed on March 31, 1975. Responsibilities of the field units included the conduct of statewide conferences on school-age parenthood; publication of resource materials for program personnel; and reviews of various aspects of research in this field. Since 1971, 36 statewide conferences on school-age parenthood have been held, many of them with support of agencies within the Department of Health, Education and Welfare. (e.g.Maryland State Conference on School-Age Parenthood - Attachment C). Some of the states have as well had follow-up conferences which have been sponsored largely through support of independent school-age parent advocacy organizations, many of them affiliates of NACSAP.

The purpose of the original series of statewide conferences was to bring together the state agencies responsible for funding and administrative support to local program operations. The conference strategy nurtured communication of the agency representatives and for the first time brought together representatives of different disciplines to address a problem of mutual concern. Whereas the concept of bringing the agencies together was sound and constructive, the lack of attention to follow-up to these meetings prevented them from having maximum impact on the actual delivery of services in rural and urban communities in those 36 states. It is that issue which the private, non-profit corporations and/or advocacy groups are now addressing. For example, in 1972 the Washington State Conference on School-Age Pregnancy was held in Seattle with an attendance of over five hundred people from throughout the state. With limited resources provided, the sponsoring unit (CECC) was unable to monitor progression of subsequent field activity in that state. Nonetheless, an Inter-agency Coordinating Council was formed, comprised of representatives of the State Department of Education (Office of the Superintendent of Public Instruction) and the Department of Social and Health Services. As a natural progression, the Inter-Agency Council recognized the need to develop a more formal structure which could provide an opportunity for program personnel to become involved in the policy planning efforts of the Council. This led to the formation of the Washington Alliance Concerned with School-Age Parents (WACSAP II) which was organized in November of 1973. The organization has since sponsored a number of in-service training institutes (one of which is being incorporated into the curriculum at Central Washington State College); sponsored three annual membership meetings; and recently developed a Legislative Action Committee to begin work on the development of a model comprehensive state service plan. This is the first such state to begin work on comprehensive model legislation in this area. A number of other states, such as Michigan, Florida, and Maryland, have statutes and/or policies which earmark funds and/or require that educational services be provided to school-age parents, pregnant students, and/or married students. However these are not comprehensively focused.

The developmental process of the statewide affiliate in Washington has illustrated the potential of state advocacy organizations for implementing the work prescribed in S.2538. Though these organizations are not presently staffed, the organizational structures would adapt to the structure described in S.2539. Inasmuch as these groups are already focused on an inter-disciplinary basis, their ability to carry out the spirit of the proposed legislation is optimum as opposed to the focus of single state agency designated as a coordinator.

Another major activity affecting programs in the early seventies was the introduction of an Education for Parenthood (EFP) program developed by the Education Development Center of Cambridge, Massachusetts, through funds provided by the Office of Child Development (OCD) and the National Institute of Child Health and Human Development (NICHHD). The U.S. Office of Education has cooperated in the implementation of this program which is called "Exploring Childhood." It is essentially a social studies based learning package which affords junior and senior high school students opportunities to learn about what it means to be a parent. Approximately thirty school-age parent programs participated in the initial testing of the curriculum developed by EDC and an informal survey in the fall of 1974 showed that the impact of the program on the young women who participated provided them with an opportunity to improve their own self concept as well as to better understand the complexities of a child. The national attention focused on EFP has increased attention to the importance of teaching about parenting as a means of preventing early and unwanted pregnancy. Given the increase in the numbers of births to young women under the age of 15, the Alliance encourages the development of parenting programs which specifically address the needs of adolescents who are already parents. Inasmuch as "Exploring Childhood" was designed to focus on junior and senior high students, school-age parent programs which have used the resource have had to adapt it to their own population. The emphasis which S.2538 gives to parenting education is to be commended and supported.

SECTION B - DEMONSTRATED NEEDS OF YOUNG PARENTS

Through our contacts with approximately 1,100 members in 48 states, NACSAP has collected considerable information regarding the needs of young parents. During the 1974-1975 academic school year, with some support from the Office of Special Programs of the U.S. Office of Education, the Alliance developed an informal Needs Assessment instrument which was circulated on a limited basis in 12 states. The purpose of the survey was to ascertain what the perceived needs of adolescent parents were from the viewpoint of the professionals in contrast to the viewpoint of young parents themselves. Secondly, the Needs Assessment evaluated the extent to which these needs were being met through organized or informal programs. The findings in Louisiana and Oregon show that professionals considered parenting education and vocational services as the most important needs of the young parents. (Attachment D)

The Youth Caucus of the National Conference on School-Age Parenthood further underscored the need for parenting education. The youth also identified other needs which should be taken into consideration in our review of the legislation (Attachments E and F). I would emphasize that the Youth Delegates voiced particular concern about the lack of attention given to their legal rights and they expressed a need to have extensive information in this area. Another point which they raised was the need for financial advice to assist them in matters of credit, insurance, welfare and related financial areas. They indicated the unacceptability of the health care presently offered to them and encouraged health care providers and other interested parties to take into consideration not only youth accessability to health care, but also the means by which health care providers are trained to work with adolescents. They encouraged the adoption of parenting courses in school curricula for credit which would be made available to all students with special emphasis upon young men. Despite the difficulties in offering services to young men who are not always enrolled in regular school programs, nonetheless, this need should be given attention in the development of state plans and local efforts related to S.2538.

In addition to the recommendations of the Youth Caucus of the National Conference on School-Age Parenthood, the Alliance has learned of additional needs of young parents as reported by local program administrators and state agency representatives. For example, the need for more extensive and long-range follow through support services for young parents after they have completed their involvement in special programs. Program administrators have also found that young parents can be at greater risk educationally following the birth of their child inasmuch as the concentrated intervention available during pregnancy is no longer provided. Inasmuch as S.2538 does address this need, there is not adequate emphasis on this aspect of programming for young parents and their families. Depending upon the locale of some programs, there are also significant obstacles with respect to transportation facilities. This is particularly true in rural areas and therefore the Alliance suggests that the legislation would be further strengthened by incorporating a representative on the advisory council who is familiar with transportation resources. Housing and job information, as well as details about job training programs should also be incorporated into the service network. In the interests of recognizing the rights and responsibilities of the young parents themselves, there should be adequate representation of school-age parents on the advisory council.

SECTION C - NEEDS OF PROGRAM PERSONNEL

Whereas S.2538 describes methods for administering funds on the part of state agencies and/or private non-profit corporations along with some mention of personnel standards, the legislation would be strengthened by earmarking funds to be made available directly to local programs which could in turn offer in-service training for staff working with young parents. The Alliance has been providing in-service training in this area during the past two years. This training has become the second most frequently requested service on the part of our members, the first being the need for informational materials. In light of this, inasmuch as we recognize school-age parent programs are crisis intervention efforts, steps should be taken to make sure that staff working with young people are well-equipped and prepared to handle the situations which develop when youngsters are facing an early and unplanned pregnancy.

Whereas the legislation emphasizes the need for quality services for young parents, the Alliance would suggest that consideration be given to the location of the quality services. Program personnel often report that the facility in which they are working is very often a facility which has been abandoned by other programs which are given higher priority. Therefore, it is suggested that the statewide plan establish recommended criteria for school-age parent program facilities. The substandard location of school-age parent programs is often a reflection of punitive attitudes on the part of the community with respect to young parents. We would submit that it is difficult to improve the self-concept of young women experiencing an early pregnancy when their program is housed in a rundown building.

Inasmuch as program operators are often isolated from one another geographically, it would be helpful for the agency administering the funds authorized by S.2538 to establish a network for the exchange of information about program operations throughout the state. The Alliance has found that teachers, counselors, nurses, doctors, social workers and others working in direct services are interested in knowing what others in their profession are doing and also to learn about what has been an effective model in other communities. The Alliance would be willing to work closely with any state unit in facilitating the exchange of this information through its membership and contact system.

As a final point with regard to the needs of program personnel, we have learned that just as young parents are without materials well suited to their needs, the same is true for the program administrators. The need here is often related to policy information. It is suggested that the designated coordinating agency provide local programs with current policy information. State and local departments of health, education, and social services could perhaps serve as conduits for this information.

SECTION D - COMMENTS AND SUGGESTIONS REGARDING S.2538

NACSAP wishes to go on record today in support of the concept of the National School-Age Mother and Child Health Act of 1975. As the first significant effort to be taken at the Federal level with respect to the provision of specialized funding for services to intervene in the crisis of school-age parenthood, it is a bold and positive step in this field. In order to strengthen the legislation, the Alliance strongly urges that consideration be given, however, to changing the name of the Act to read the National School-Age Parent and Young Family Services Act of 1975. This would take into account the need for health, education, and social services of young mothers and fathers and their children.

In review of the stated purposes of the act, the Alliance would further suggest that in addition to the four items already specified, that a fifth item be added which would read as follows: "To improve the knowledge base regarding the incidence and consequences of school-age parenthood through increased support of research projects and local program efforts." As a point of reference here, it would perhaps be illustrative to share with the Committee the fact that the Alliance receives approximately 250 requests per month for information on various aspects of school-age parenthood. The requests come from all over the country and from people in many different disciplines. Most of the requests fall into two categories: 1) information and/or supportive data documenting results of school-age parent crisis intervention programs on short and long term; and, 2) program material which can be used by staff in school-age parent programs. The limited research done to date in this field does not provide a sound basis on which to make judgments, generalizations, and/or predictions about the population and program direction. Further, we are still without any substantive program information regarding the consequences of school-age parenthood for youngsters in rural communities.

As a third point of concern with respect to the design of the bill as it now reads, we note that the grants which could be made to "designated state agencies" would not necessarily require equal involvement on the part of state departments of public instruction, health, and social services. It has been our experience over the past five years in the planning and implementation of many statewide conferences on school-age parenthood to find that whereas it is possible to develop coordinated plans for the delivery of services, be it for a statewide conference or a local training program, nonetheless, if a lead agency role is given to the health department at the state level, it is likely that the State Department of Public Instruction will view this issue as a less than critical problem and will respond accordingly. The same would be true were the responsibility given only to state education agencies. Local school districts are the only institutions which by law automatically have ready access to school-age parents. We would urge, therefore, whatever state agency and/or private non-profit corporation is designated as the recipient of the funds, that there be a requirement that the state education agency be involved in the development and implementation of a state plan.

Another question which we raise is whether or not the state agencies are the appropriate units to receive the funds. Recognizing that there are school-age parent advocacy organizations and/or ad hoc task forces organized at the local and state level in only 26 states, it is suggested that they be reviewed carefully as primary receivers of the funds. Since the genesis of school-age parent programs has been the result of local, community activity rather than state activity, perhaps the advocacy organizations could better serve the interests of the program people and the state agency representatives. It would, of course, be possible to ascertain those states where there has been evidence of support for school-age parent programs and further to document how that support has been translated into action at the local level. In those states where this cannot be demonstrated, and, where there are no state advocacy groups, one might consider awarding funds to local or regional program units.

Recognizing the inherent difficulty in gaining administration support for a bill of this nature, the Alliance would like to point out that this is the only measure which *clearly* and specifically provides eligibility to young parents for comprehensive services. Despite the existence of other programs such as Titles V, XIX, and XX of the Social Security Act, Titles IV and X of the Public Health Service Act, and Title I of ESEA, none of these specifically provides eligibility for school-age parents. This is a significant weakness and needs to be recognized since it is of great concern to school-age parent program operators. I quote from "A Study of Services for Adolescent Parents" a report by the Community Service Council of Greater Tulsa, (Tulsa, Oklahoma), published in April of this year, which reads, "Agencies state that inadequacy within their own services delivery can be attributed to a half-dozen factors: *eligibility guidelines which are too low*; poor outreach and follow-through for the clients; a need for more specific services, such as teen clinics, teaching programs, and emergency needs services." It is impossible for us to be optimistic about the use of existing programs for the young parents we represent. We know that children and youth are not, by any stretch of the imagination, receiving a proportionate, or fair share of funds presently expended for health care. As reported by Helen M. Wallace, M.D., M.P.H., and Hyman Goldstein, Ph.D., in their study entitled, "Child Health Care in the United States: Expenditures and Extent of Coverage with Selected Comprehensive Services", (Pediatrics, Vol. 55, No. 2, February, 1975), we know that children and youth under 19 years of age represent 36.9% of the total population in the United States, and yet they receive less than 20% of the expenditures for health care. Of equal importance is the fact that these services, pointed out by our young parents, are rarely designed *for them* in order to meet *their needs.* Therefore, to underscore a particular strength of S.2538, it is the eligibility for service granted to school-age parents.

In terms of the recommended representation on the State advisory council, the Alliance would suggest that inasmuch as possible, the recipients of the funds would be required to involve representatives from existing school-age parent program operations including administrators, staff, and consumers. Just as we recommended that the state education agency be required to be involved in the development and implementation of the plan, so should a local educator. We feel this balance is needed, since there is considerable variation between state and local policies and the ways in which policy(ies) may affect continuing educational opportunities of school-age parents. Special attention should also be given to the representation of rural areas on the advisory council. The differences between the quantity and quality of services available in rural communities versus urban areas have been recognized but are not presently addressed.

With respect to the length of time during which support would be available for comprehensive services, the Alliance has found that more and more program people are reporting the fact that serious problems develop for young parents as long as two years after the birth of their child. This points out the need for sustained, intervention services. This can admittedly be costly. However, it is less costly if provided for in a prevention oriented program rather than in treatment---after the problems develop into crises!

Since the total amount of funding provided for in S.2538 is recognizably small given the size of this problem nationally, in order to determine what the long range outcome of service intervention can be, applications should be entertained from existing programs for funds which could be used in sustained follow-through services. It is suggested that at least one and no more than three programs in the state be provided with funding of this type. Any more monies devoted in that direction would of course, substantially limit the resources available to communities presently offering no support services for school-age parents.

As a concluding point, the Alliance commends Senator Kennedy, his staff and others involved in the development of this bill for recognizing the need to incorporate a maintenance effort clause. Recent history has shown that some programs have been started in special interest areas without taking into account the fact that new legislation could jeopardize present funding levels. In our own experience as a minimally, funded national association, we have had to operate on what we consider a much more cost effective basis than other programs funded at perhaps ten times our level. Our experience at the national level has been duplicated by local program operators. Therefore, whereas thirty million dollars is not going to solve the problems related to adolescent parenthood in this country, I am confident that authorization and eventual appropriation of these funds would have the potential for impact of an authorization much larger given the capabilities of the people in this field. I am indeed saying that we have had to make small amounts of money go a long way! We are proud of our track record and would welcome the opportunity to demonstrate this skill further while improving the quality of life of young parents and their children.

Thank you for the opportunity to offer comments on S.2538. The Alliance looks forward to working cooperatively with you in the future.

Janet Bell Forbush
3746 Cumberland Street, N.W.
Washington, D.C. 20016
Telephone: (301) 654-2335 (work)
Birth Date: August 24, 1944
Marital Status: Married

EDUCATION

Michigan State University, East Lansing, Michigan. B.A. - June 1966. Major - political science. Minor - secondary education.

San Diego State College, San Diego, California. Certificate of Completion - Educational Television Utilization (9 credits). June 1966 - August 1966.

George Washington University, Washington, D.C. M.A. - December 1969. Major - education.

EMPLOYMENT

Executive Director, National Alliance Concerned with School-Age Parents, 7315 Wisconsin Avenue, Suite 211-W, Washington, D.C. July 1974 - present.

Director, Washington Office, National Alliance Concerned with School-Age Parents, and Technical Assistance Specialist. March 1973 - July 1974.

Conference Coordinator, Consortium on Early Childbearing and Childrearing, 1145 19th Street, N.W., Washington, D.C. September 1971 - March 1973. Coordinated conferences on school-age pregnancy in: Florida, Washington, Texas, Alabama, Ohio, and Arizona.

Assistant Community Educator, Federal City College, Division of Community Education, 1331 H Street, N.W., Washington, D.C. April 1968 - September 1971.

Consultant, North American Rockwell Company, 1730 Pennsylvania Avenue, N.W., Washington, D.C. February 1971 - August 1971.

Consultant, National Reading Center, 1776 Massachusetts Avenue, N.W., Washington, D.C. September 1970 - February 1971.

Peace Corps Volunteer, Mandeville, Jamaica, West Indies, and Medellin, Colombia, South America. August 1966 - March 1968. Educational television utilization/development officer and adult literacy instructor. Conducted in-service seminars in teachers' training college in language arts and social studies.

SPECIAL ACTIVITIES

Member, HEW Inter-Agency Task Force on Comprehensive Programs for School-Age Parents, 1972 - present.

Member, Task Force on Maternal and Newborn Health, sponsored by the National Foundation-March of Dimes, June 1975 - present.

Member, American School Health Association Legislative Committee, 1975 - present.

HONORS

Nominated as one of ten outstanding young women in America, 1974.

PROFESSIONAL ASSOCIATION MEMBERSHIPS

American Society of Association Executives
American School Health Association
Day Care and Child Development Council
National Association for the Education of Young Children
National Association of Educational Broadcasters

PUBLICATIONS

Editor, NACSAP Newsletter.

Contributing Editor, Legislative Notes column, Journal of School Health.

Forbush, Janet Bell, M.A., and Braen, Bernard B., Ph.D., School-Age Parenthood A National Overview, Journal of School Health, Vol. XLV, No. 5, May 1975.

INTERESTS: Travel, music (opera), meeting and knowing people.

LANGUAGE: Spanish

TRAVEL: South America - Colombia, Venezuela, Mexico, Curacao, N.A.
Europe

nacsap

National Alliance Concerned with School-Age Parents

7315 WISCONSIN AVENUE, SUITE 211-W
WASHINGTON, D.C. 20014
(301) 654-2335

Research Division
804 UNIVERSITY AVENUE, 2nd FLOOR,
SYRACUSE, NEW YORK 13210
(315) 423-3583

INFORMATION COPY

October, 1975

NACSAP BOARD AND STAFF DIRECTORY

NACSAP BOARD OF DIRECTORS

President:
Philip J. Goldstein, M.D.
Associate Professor
Chief
Department of Obstetrics and
Gynecology
Sinai Hospital
Belvedere and Green Spring Avenues
Baltimore, MD 21215
Phone: (301) 367-7800 ext. 8251

Vice President:
Bessie King Jackson
Director, Columbus Urban League's Bethune
Center Program for Single Parents
440 Fairfield
Columbus, OH 43203

Home: 1564 Southfield Drive South
Columbus, OH 43207
Phone: (614) 253-3639 - Bus.
(614) 491-2651

Secretary:
June Shimokawa
National Division Liaison
Board of Global Ministries
The United Methodist Church
Health and Welfare Ministries Division
475 Riverside Drive
New York, NY 10027
Phone: (212) 749-0700

Treasurer:
James F. Jekel, M.D.
Associate Professor of Public Health
Department of Epidemiology and Public Health
Yale University Medical School
60 College Street
New Haven, CT 06510
Phone: (203) 436-4205

Nancy M. Boykin
Director, Continuing Education for Girls
Detroit Public Schools
10100 Grand River, Room 305
Detroit, MI 48204

Home: 330 Trowbridge
Detroit, MI 48202
Phone: (313) 931-2580 - Bus.
(313) 883-3299 - Home

Ezra C. Davidson, M.D.
Chairman, Department of Obstetrics and
Gynecology
Martin Luther King Jr. Hospital
12021 S. Wilmington
Los Angeles, CA 90059
Phone: (213) 636-0961

Lucinda Gordon
Project Director
Lady Pitts Family Living Service
3903 West Lisbon Avenue
Milwaukee, WI 53208

Home: 4144 North 71st Street
Milwaukee, WI 53216
Phone: (414) 933-7570 - Bus.
(4 462-1914 - Home

Stephen J. Jerrick
Executive Director
American School Health Association
Kent, Ohio 44240
Phone: (216) 678-1601

The Reverend Philip E. Perkins
Rector, Grace Episcopal Church
3600 Australian Avenue
West Palm Beach, FL 33407
Phone: (305) 848-0654

NACSAP Board and Staff Directory
Page Two
October, 1975

Alice B. Popkin
Professor of Law and Director,
Child Advocacy Unit
Antioch Law School
1624 Crescent Place, N.W.
Washington, D.C. 20009

Home: 3125 Garfield Street, N.W.
Washington, D.C. 20008
Phone: (202) 265-9500 - Bus.
(202) 225-2951 - Home

Thomas Sand
Vice President
Parent's Magazine Films
52 Vanderbilt Place
New York, NY 10017
Phone: (212) 685-4400

William L. Smiley, M.D.
Assistant Deputy Health Commissioner
St. Louis City Health Department
Department of Maternal and Child Health
1421 N. Jefferson Street
St. Louis, MO 63106

Home: #7 Windermere Place
St. Louis, MO 63131
Phone: (314) 533-8020 - Bus.
(314) 301-2741 - Bus.

Eleanor W. Smith, R.N.
Assistant Clinical Professor
Department of Family Health Care Nursing
School of Nursing
University of California
San Francisco Medical Center
San Francisco, CA 94122

Home: 1672 Funston Avenue
San Francisco, CA 94122
Phone: (415) 666-4442 - Bus.
(415) 6[illegible]-2824 - Home

Vivian E. Washington
(Chairman, Maryland Governor's
Commission on Children and Youth)
3507 Ellamont Road
Baltimore, MD 21215
Phone: (301) 542-8163

NACSAP STAFF

Janet Forbush
Executive Director
7315 Wisconsin Avenue, Suite 211-W
Washington, D.C. 20014
Phone: (301) 654-2335

Bernard Braen, Ph.D.
Director, Research and Publications
804 University Avenue, 2nd Floor
Syracuse, NY 13210
Phone: (315) 423-3595

MARYLAND CONFERENCE
on
SCHOOL-AGE PARENTHOOD

OCTOBER 31, 1975
URBAN LIFE CENTER
COLUMBIA, MARYLAND

SPONSORED BY:

National Alliance Concerned with School-Age Parents

COORDINATED BY:

GOVERNOR'S COMMISSION ON CHILDREN & YOUTH

CONFERENCE CO-SPONSORS

Florence Crittenton Services of Baltimore
Planned Parenthood Association of Maryland
St. Mary's County Department of Social Services
Sinai Hospital of Baltimore - Department of Obstetrics and Gynecology
- Department of Social Work

The State of Maryland

Executive Department

GOVERNOR'S PROCLAMATION

School-Age Parent Month
October, 1975

WHEREAS, The number of children born to young parents presently of school-age is still rising both nationally and in Maryland; and

WHEREAS, A statewide conference focusing on the needs of school-age parents, their infants and their families is being held on October 31, 1975, in Columbia; and

WHEREAS, This conference is being sponsored by the National Alliance Concerned with School-Age Parents (NACSAP) and other groups; and

WHEREAS, The quality of care and services provided to both infants and their parents is indicative of the quality of tomorrow's society; and

WHEREAS, It is essential that the general public have a better understanding and appreciation of the needs of this important segment of our population; and

NOW, THEREFORE, I, MARVIN MANDEL, Governor of the State of Maryland, do hereby proclaim October, 1975, as

SCHOOL-AGE PARENT MONTH

in Maryland, and I commend this observance to all our citizens.

GIVEN Under My Hand and the Great Seal of the State of Maryland, in the City of Annapolis, this 25th Day of August, in the Year of Our Lord, One Thousand Nine Hundred Seventy-Five.

By the Governor:

Marvin Mandel

Fred L. Wineland
Secretary of State

PLANNING COMMITTEE

Babette Bierman
Sinai Hospital of Baltimore

Mallory Crawford
formerly Community Pediatric
Center, University of
Maryland

Henri Ann Daniels
Governor's Commission on
Children and Youth

Shirley Handelsman
Planned Parenthood Association
of Maryland

Winnifred Hubbard
Department of Health
and Mental Hygiene

Frederick R. Keyton, Ph.D.
Department of Education

Misbah Khan, M.D.
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Department of Human Resources

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Anne Arundel County
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Beverly Marable
Governor's Commission on
Children and Youth

Margaret Needham
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Marilyn N. Pelham
Florence Crittenton Services
of Baltimore

Ella May Russell
St. Mary's County Department
of Social Services

Carolyn B. Smeton
Adolescent Pregnancy Program
Johns Hopkins Hospital

Marjorie Teitelbaum
formerly Maryland 4-C Committee

Vivian Washington
Governor's Commission on
Children and Youth

Lois E. White
Edgar Allan Poe School for
Teen Age Mothers
Baltimore City Public Schools

Nancy C. Woodford
Board of Education of
Harford County

Janet Forbush
National Alliance Concerned
with School-Age Parents

Mary Catherine Wilkins
National Alliance Concerned
with School-Age Parents

conference program

8:30 A.M. CONFERENCE REGISTRATION

9:00 A.M. to 10:30 A.M.

GENERAL SESSION

ROOM 5

INTRODUCTION AND WELCOME

PHILLIP J. GOLDSTEIN, M.D., President, National Alliance Concerned with School-Age Parents, and Obstetrician-Gynecologist in Chief, Sinai Hospital of Baltimore.

AGENCY OVERVIEW OF THE STATUS OF SERVICES DELIVERY TO ADOLESCENT PARENTS IN MARYLAND

JAMES SENSENBAUGH, Ed.D., State Superintendent of Schools.

ANNE IRONS, Division Chief, Program and Policy Development, Social Services Administration, Department of Human Resources.

BENJAMIN D. WHITE, M.D., Assistant Secretary for Programs, Department of Health and Mental Hygiene.

DAVID L. GLENN, Assistant Secretary, Office of Program Coordination, Department of Human Resources.

CHALLENGE TO ACTION

JANET FORBUSH, Executive Director, National Alliance Concerned with School-Age Parents, Washington, D.C.

10:45 A.M. to 12:00 P.M.

DISCUSSION GROUPS

A. IMPACT OF LEGISLATION ON FUNDING SCHOOL-AGE PARENT PROGRAMS ARENA

RICHARD GRUMBACHER, former State Delegate, Hagerstown.

HATTIE N. HARRISON, State Delegate, District 45, Baltimore.

Recorder: VIVIAN WASHINGTON, Chairperson, Governor's Commission on Children and Youth, Baltimore.

B. LOCAL POLICIES FOR ADOLESCENT PARENTS IN HEALTH, EDUCATION, AND SOCIAL SERVICES ROOM 1

FREDERICK KEYTON, Ph.D., Consultant in Pupil Services, Maryland State Department of Education, Baltimore.

JOHN M. KRAGER, M.D., M.P.H., Assistant Health Officer, Baltimore County Health Department, Towson.

BETTY SCHWARTZ, Executive Director, Florence Crittenton Services of Baltimore.

Recorder: MARGARET NEEDHAM, R.N., Public Health Nursing Consultant, Preventive Medicine Administration, Department of Health and Mental Hygiene.

C. LEGAL RIGHTS AND RESPONSIBILITIES OF ADOLESCENTS ROOM 7

ROBERT B. WATTS, Associate Judge, Supreme Bench of Baltimore City.

Recorder: MISBAH KHAN, M.D., M.P.H., Pediatric Consultant, Preventive Medicine Administration, Department of Health and Mental Hygiene, and Associate Professor of Pediatrics, University of Maryland, Baltimore.

D. PARENTHOOD EDUCATION (2 Sections)

ROOM 5

W. STANLEY KRUGER, Director, HEW Inter-Agency Task Force on Comprehensive Programs for School-Age Parents, Washington, D.C.

KATHARINE BOUCHER, Chairperson, Parenting Committee, Governor's Commission on Children and Youth, Severna Park.

Recorder: ERIC FINE, M.D., Chief, Infant and Child Health Services, Preventive Medicine Administration, Department of Health and Mental Hygiene, Baltimore.

E. UNDERSTANDING THE ADOLESCENT PARENT (2 Sections)

ROOM 2

GHISLAINE GODENNE, M.D., Director, Counseling and Psychiatric Services, and Professor of Psychology, Johns Hopkins University, Baltimore.

Recorder: CAROLYN SMETON, Social Worker, Adolescent Pregnancy Program, Johns Hopkins University Hospital, Baltimore.

BLUE LOUNGE AREA

DORIS WELCHER, Ph.D., Pediatric Psychologist, Johns Hopkins University Medical School, Baltimore.

Recorder: ALBERTINE LANCASTER, Supervisor, St. Mary's County Department of Social Services, Leonardtown.

F. RURAL AND URBAN PROGRAM MODELS

YELLOW CAUCUS AREA

ANN BOONE, Education Specialist, Office of Home Economics, Baltimore City Department of Education.

JANE DAWSON, Consultant for Family Living and Human Development Education, Allegany County Board of Education, Cumberland.

ELLA MAY RUSSELL, Social Worker, St. Mary's County Department of Social Services, Leonardtown.

LOIS WHITE, Principal, Edgar Allan Poe School for Teen Age Mothers, Baltimore City Public Schools.

Moderator: LEROY DURHAM, Acting Executive Director, Maryland 4-C Committee, Baltimore.

Recorder: MARILYN PELHAM, Educational Coordinator, Florence Crittenton Services of Baltimore.

12:15 P.M. to 1:45 P.M.

LUNCHEON MAIN DINING ROOM

MODERATOR: VERDA F. WELCOME, State Senator District 40, Baltimore.

INVOCATION: MISBAH KHAN, M.D., M.P.H., Pediatric Consultant, Preventive Medicine Administration, Department of Health and Mental Hygiene, and Associate Professor of Pediatrics, University of Maryland, Baltimore.

A STRATEGY FOR SERVICES FOR ADOLESCENT PARENTS

MARVIN CORNBLATH, M.D., Pediatrician-in-Chief, University of Maryland Hospital, Baltimore.

2:00 P.M. to 3:15 P.M.

REGIONAL DISCUSSION GROUPS

REGION I (Central Region) ROOM 5
(Baltimore City, Baltimore County, Anne Arundel County, and Harford County)

KENNETH TWENTEY, Regional Coordinator, Maryland State Department of Education, Baltimore.

Recorder: JEANNE LINK, Field Coordinator, Maryland 4-C Committee, Baltimore.

REGION II (Eastern Shore) ROOM 1
(Cecil, Queen Anne's, Kent, Caroline, Talbot, Dorchester, Wicomico, Somerset, Worcester Counties)

FREDERICK KEYTON, PH.D., Consultant in Pupil Services, Maryland State Department of Education, Baltimore.

Recorder: BABETTE BIERMAN, Social Worker, OB Clinic, Sinai Hospital of Baltimore.

REGION III (Southern Maryland) ROOM 2
(Prince George's, Charles, St. Mary's, Calvert Counties)

JOSEPH MORTON, Regional Coordinator, Maryland State Department of Education, Baltimore.

Recorder: ROSALIE STREETT, Director, [illegible]bar Infant-Parent Program, Baltimore.

REGION IV (Western Maryland) ROOM 7
(Montgomery, Howard, Carroll, Frederick, Washington, Allegany, and Garrett Counties)

ANDREW MASON, Regional Coordinator, Maryland State Department of Education, Baltimore.

Recorder: BEATRICE LANGFORD, Single Parent and Family Services Specialist, Social Services Administration, Department of Human Resources.

3:30 P.M. to 4:30 P.M.

GENERAL SESSION ROOM 5

YOUTH PANEL

MODERATOR: FELIX HEALD, M.D., Professor of Pediatrics and Director, Division of Adolescent Medicine, University of Maryland School of Medicine, Baltimore.

YOUTH COORDINATOR: RANDALL LAKE, Specialist in Student Affairs, Maryland State Department of Education, Baltimore.

CHARGE TO CONFEREES

ROSALIE S. ABRAMS, State Senator, District 42, Baltimore.

ABOUT THE CONFERENCE SPONSORS

NACSAP

The National Alliance Concerned with School-Age Parents (NACSAP) is a multi-disciplinary, non-profit tax-exempt organization specializing in the provision of technical assistance to individuals and groups advocating improved services delivery to school-age parents and their infants. Membership dues are: Young Parent - $2/yr.; Individual - $20/yr.; Family - $30/yr.; Sustaining - $50; and Patron - $100. All membership dues and contributions are tax deductible. For membership information, write NACSAP, 7315 Wisconsin Avenue, #211-W, Washington, D.C. 20014. Telephone: (301) 654-2335.

GOVERNOR'S COMMISSION ON CHILDREN AND YOUTH

The Commission on Children and Youth was created by an Executive Order of the Governor in 1972 and is placed within the Department of Human Resources. Two of the several charges given to the Commission are: 1) to bring together public and private agencies to plan coordinated programs for children and youth, and to recommend activities leading to strengthening of children and youth in decision-making in public and private agencies whose programs concern children and youth; and 2) to prepare for, participate in, and implement state, regional, and national conferences for children and youth.

Maryland Conference on School-Age Parenthood sponsored in part through contract funds awarded by the U.S. Office of Education (Contract OEC-0-73-7020).

1976 CHALLENGE TO ACTION

National Alliance Concerned
With
School-Age Parents
(NACSAP)

CAMERA [illegible] SHOOT AND
SUPPLY 2 SETS DYLUX
(Hold Page Numbers Thruout)

NACSAP NEEDS ASSESSMENT STUDY

Item	Louisiana Importance	Louisiana Met-in		Louisiana Met-out		Oregon Importance	Oregon Met-in	Oregon Met-out
Arts and Crafts	2.46	2.85	[illegible]	2.76	.30	2.96	3.28	4.00
Driver Safety	3.84	(3.31)	(.53)	(3.00)	(.84)	4.01	(3.40)	(4.00)
English	3.83	(3.66)	(.17)	(3.18)	(.65)	3.89	3.97	4.00
Other Languages	1.76	2.85		2.75		2.28	2.88	3.74
Health and Safety	4.18	(3.50)		(3.38)		4.31	(3.91)	(3.81)
Home Economics	3.94	(3.32)		(2.95)		4.11	(3.91)	(4.10)
Mathematics	2.36	3.34		2.86		2.73	3.78	4.05
Parenting	4.36	(2.99)		(3.02)		4.36	(3.78)	(3.63)
Physical Education	3.08	3.18		(3.07)		3.30	3.43	3.91
Science	3.61	3.45		2.96		2.70	3.77	4.01
Social Studies	2.69	3.01		2.94		2.99	3.59	4.12
Vocational Education	3.14	3.16		3.39		3.31	3.51	4.29
Health Services Cluster	4.34	(3.13)		(3.52)		4.20	(3.67)	(4.09)
Social Services Cluster	4.15	(2.77)		(3.29)		4.12	(3.68)	(3.79)
Vocational Services Cluster	4.51	(2.89)		(3.22)		4.35	(3.37)	(3.89)
General Services Cluster	4.00	(2.76)		(3.07)		3.93	(3.40)	(3.85)

Louisiana

Field	
Education	14 (13%)
Medicine	9 (8%)
Nursing	16 (15%)
SW or Welfare	67 (62%)
Day Care	1 1%
Business	1 1%
Guidance	1 1%
	101%

Agency	
Education	17 (16%)
Public Health	23 (21%)
Social or W	67 (62%)
Nursing	2 (2%)

Level of Responsibility	
Program Director	1 (1%)
Associate Director	2 (2%)
Supervisor	19 (17%)
Clinician	72 (66%)
Other Services	14 (13%)
Non Services	1 (1%)

Religion	
Roman Catholic	37 (34%)
Protestant	67 (62%)
Jewish	0
Other	4 (4%)
None	1 (1%)

Oregon

Field	
Education	28 (30%)
Medicine	8 (9%)
Nursing	1 (1%)
SW or Wel.	33 (36%)
Business	2 (2%)
Other	20 (22%)

Agency	
Education	35 (44%)
Pub. Health	6 (8%)
SW or Welf.	37 (47%)
Nursing	1 (1%)

Level of Responsibility	
High Level	1 (1%)
Program Director	15 (19%)
Associate Director	2 (3%)
Supervisor	5 (6%)
Clinician (Educ., Health, SW)	45 (57%)
Other Services	3 (4%)
Community	8 (10%)

Religion	
Roman Catholic	11 (12%)
Protestant	49 (54%)
Jewish	1 (1%)
Other	16 ([illegible])
None	13 ([illegible]4%)

NACSAP NEEDS ASSESSMENT STUDY

Item	Louisiana Importance	Louisiana Met I N	Louisiana Met OUT	Oregon Importance	Oregon Met I N	Oregon Met OUT
Arts and Crafts	2.46	.39	.30	2.96	.32	1.04
Driver Safety	3.84	(.53)	(.84)	4.01	(.61)	(.01)
English	3.83	(.11)	(.65)	3.89	.08	.11
Other Languages	1.76	1.09	.99	2.28	.60	1.46
Health and Safety	4.18	(.68)	(.80)	4.31	(.40)	(.50)
Home Economics	3.94	(.62)	(.99)	4.11	(.20)	(.01)
Mathematics	2.36	.98	.50	2.73	1.05	1.32
Parenting	4.36	(1.37)	(1.34)	4.36	(.58)	(.73)
Physical Education	3.08	.10	(.01)	3.30	.13	.61
Science	2.61	.84	.35	2.70	1.07	1.31
Social Studies	2.69	.32	.25	2.99	.60	1.13
Vocational Education	3.14	.02	.25	3.31	.20	.98
Health Services Cluster	4.34	(1.21)	(.82)	4.20	(.53)	(.11)
Social Services Cluster	4.15	(1.38)	(.86)	4.12	(.44)	(.33)
Vocational Services Cluster	4.51	(1.62)	(1.29)	4.35	(.98)	(.46)
General Services Cluster	4.00	(1.24)	(.93)	3.93	(.53)	(.09)

Code:

Value	Importance	Needs Met
1	Unimportant	Very Poorly, Not at All
2	Below Average Importance	Poorly
3	Average Importance	Fairly Well
4	Above Average Importance	Well
5	Very Important	Very Well- Excellently

nacsap

National Alliance Concerned with School-Age Parents

7315 WISCONSIN AVENUE, SUITE 211-W
WASHINGTON, D.C. 20014
(301) 654-2335

Research Division
804 UNIVERSITY AVENUE, 2nd FLOOR,
SYRACUSE, NEW YORK 13210
(315) 423-3586

YOUTH CAUCUS RECOMMENDATIONS

NATIONAL CONFERENCE ON SCHOOL-AGE PARENTHOOD

DENVER, COLORADO - OCTOBER 11, 1975

In response to the concerns of the Youth Caucus of the 1975 National Conference of the National Alliance Concerned with School-Age Parents convened in Denver, Colorado,

The Youth Caucus recommends that the Board of Directors of the National Alliance Concerned with School-Age Parents resolve:

1. To utilize all available legislative resources in promoting the establishment of human services programs specifically designed to meet the needs of young parents;
2. To promote the establishment of Pre-Natal/Post-Partum Care and Parenting courses in the school curriculum for credit (available to all students) with special emphasis on young men;
3. To call for the establishment of more specialized professional counseling services to be available during pregnancy and continue thereafter. The counseling should include information on the legal rights of young parents to choose the manner in which their education shall continue;
4. To impress upon all NACSAP members (individually and through the affiliate system) the need to involve young fathers in local educational programs for young parents and to render assistance in the development and implementation of these programs;

October 9-11, 1975
The Brown Palace Hotel
Denver, Colorado

National Conference
School-Age Parenthood: A National Crisis—
A Challenge to Action

5. To uphold the legal right(s) of young parents and parents-to-be to be properly counselled as to alternatives in continuing education, job planning, adoption, etc.;
6. To utilize all available legislative resources in promoting the establishment of more and better infant and child care (day) centers and, where such programs are limited, the provision of subsidies to help pay the cost of private day care programs;
7. To initiate legislative steps to ensure the implementation, continuance, and increase in programs to subsidize mother and child nutritional care;
8. To call for the establishment of a financial advisor in each locale who would assist young parents with credit, insurance, welfare, and other financial matters;
9. To impress upon the U.S. Department of HUD the importance of monitoring fair housing standards and creating an effective mechanism by which young parents may report possible cases of discrimination;
10. To work jointly with National, State, and local Medical Associations, Health Maintenance Organizations, and all other providers of health care to encourage more humanistic medicine and medical staff care for adolescents particularly (e.g., staff training in dealing with emotions and feelings);
11. To call for the establishment of "Rights of Students and School-Age Parents" legal seminars to be held in local communities using the expertise of qualified legal authorities for the purpose of informing school-age parents of their rights, their responsibilities, and the laws concerning them;

12. To create a youth page or section in the NACSAP newsletter which would include policies, programs, and personals of special interest to school-age parents and to establish the position of Youth Editor with the responsibility of coordinating the youth page;
13. To seek to ensure the rights of young people to job opportunities with information for youth and employers regarding fair employment practices.

Mrs. Shriver. Our next speaker will be Mrs. Nix from Delaware.

You heard about the Delaware project this morning.

Mrs. Nix will talk briefly about it.

Mrs. Nix. I am pleased to have the opportunity to be here today.

I would especially like to address this aspect of Senator Kennedy's bill which points out that the bill will not be costly in terms of the Federal dollars that are involved, but will encourage State and local agencies to coordinate, maintain and expand their efforts toward helping the young mother and her child.

We have already heard from the administration about the long array of services which are available from HEW, and I will have to admit that these services are available in some places for some girls, and for those girls who are lucky enough to get to those services, but for the great majority of our young people who are aged 11, 12, 13, they cannot as has already been pointed out, get through this maze of services.

Senator **Kennedy.** How would this bill get it to them?

Mrs. Nix. Because it will coordinate and bring together, as I will try to describe what we have done in Delaware, all of these efforts.

I think we need every one of them, but they need to be coordinated, pulled together in a comprehensive form so that the young girls can get to the services that are available.

I have brought with me today two young people who have gone through the Delaware program, and I think who would be very happy to tell you about what this has meant to them.

They have gone through the services. They are with us in the audience, if you would like to ask them any questions.

Now, Senator Kennedy has said the Federal money can be used, which he describes in his bill, can be used to generate Federal, State and local support.

What Senator Kennedy has stated is not a myth. It is a reality in a few communities. With your support, it can be a reality nationwide.

The Delaware Adolescent Program, Inc., is an example of how a comprehensive program for school-age parents and their children was established on limited funds and how those funds were used to generate additional funds and in-kind support. The program was begun as a pilot project for 50 girls in 1969 and on a grant of $22,500 from the Junior League of Wilmington.

Those funds were used to generate Federal, local, and State support. Now, 7 years later, the program is the only statewide comprehensive program for school-age parents and their children operating in the entire United States. There is one center in each county of the State.

First, a brief description of the program. DAPI is comprehensive in that all services are provided under one roof, which has the distinct advantage of making coordination and interaction of all components possible. The program includes the array of services which are spelled out in the bills which are before you. Among these are continuation of education, pre- and post-natal care by obstetricians who come to the center, well baby care up to 5 years of age by pediatricians and public health nurses who also come to the center, social services to young mothers and fathers and the families of both, as well as infant day care at the center so that the mothers can interact with their babies during the school day and learn how to properly care for and stimulate them. Other needed services are also provided at the center, such as vocational training, consumer and homemaking education, preparation for childbirth and delivery.

The girls are bused to the rural centers. Girls are generally in the program for an average of 6 months and are followed up for a minimum of 2 years.

Now, how can one take $22,500 and stretch it to establish comprehensive centers in each county? A State coordinating committee was established by the Governor consisting of people from all disciplines and chaired by me to develop a State plan for comprehensive services.

The plan was submitted to the Governor, who used the plan, and the early successes of the program, to urge the State legislature to appropriate State funds to expand the program. A grant of $50,000 was subsequently appropriated to DAPI to expand its services to any girl residing in the county of New Castle, the site of the pilot program.

The original $22,500 had thus grown to $72,500.

Since education was an important component, DAPI encouraged the State Department of Public Instruction and local school districts to provide in-kind contributions. They did so by providing a building, and paying for certified teachers and educational materials.

The medical component was manned by voluntary obstetricians and pediatricians who treated each girl or baby as a private patient. The Division of Public Health provided registered nurses who also taught classes in preparation for delivery.

The social service component was supported by DAPI's State funds until a grant was received from model cities.

The infant day care center was supported by the Department of Health and Social Services through purchase of care contracts.

Community support and volunteer services were tremendous, and in 1 year, 25 agencies were volunteering staff to assist at the center.

Over the 7-year period, DAPI has continuously sought and received funds from a variety of sources. Among these are the State legislature, State Department of Public Instruction, local school districts, the Wilmington Medical Center, title IV–A of the Social Security Act, title XX, and title XIX. More recently, DAPI became the first program in the country to receive revenue sharing funds from each of our three counties in the State.

Volunteer agencies are too numerous to mention. I emphasize again that all services are under the one roof concept.

The point I am making is that Senator Kennedy's goal to use minimum Federal dollars to encourage State and local support can be accomplished as exemplified in the growth and development of DAPI.

Senator KENNEDY. This is an important point.

What do you think the value of these services are to the people that are receiving them now?

You mentioned how, with a small grant of $22,000, that you have been able to magnify that many, many times.

Just in the cost-conscious world, have you been able to estimate the range or the kind of services that would be available now to these young people?

Mrs. NIX. I might do that best by describing what has happened to the girls that have gone through the program.

Senator KENNEDY. Yes.

Mrs. Nix. I think the real important thing that we have been able to demonstrate in Delaware is the fact that by pulling all of the services together under one roof, the social workers, for example, can zero in on the problems and they will work with the teachers at the center who are also working with the girls.

The doctors who see the medical problems that exist among the girls can all work together to solve whatever needs to be solved at that point.

And this coordination would not be possible if this, say, 12- or 13-year-old girl were going over here for one phase of it and to a school over here with the teacher perhaps, who is nonsympathetic to what the problems are.

We are able therefore to work with the total situation, total family, for the benefit of all that are concerned.

Now, we did a followup study on the first 100 girls who went through the program.

I will have to agree with the administration that it takes awhile to find out what is really the effect.

Some of these programs now have been in a position to do this.

As Mrs. Forbush pointed out, more research needs to be done, more evaluation studies need to be done. I think it is significant to note that out of the first 100 girls who went through the DAPI program, as of 1969, 79 percent of those girls remained in school and graduated. This is a very significant figure because just the year before this program 90 percent of pregnant girls were dropping out of school. Here we were able to keep 79 percent in school until graduation.

That is not a short-term effect, as the administration pointed out. That I consider a long-term effect. Eighty percent of those girls are not on welfare. So it has been estimated it's a cost of $100,000 for every girl who drops out of school because of pregnancy; we are saying that 80 percent of those girls are today not on welfare.

And they would be, had it not been for the institution of this program back in 1969.

Another statistic that we have come up with through our study is that only 16 percent of the girls had repeat pregnancies.

Again, in the State of Delaware, repeat pregnancies were phenomenal.

Only 16 percent, over the 7-year period, of these girls had another baby.

In 1969, again the prematurity rate in this age group was 21 percent, and we were able to reduce that to 12 percent.

I think the significance of that is already pointed out by the doctors of both administration and this panel.

So, I strongly urge that these kinds of programs be established in every part of our country, that as Senator Kennedy has said, "It does not require a lot of new dollars, but really reprograming of what is already out there."

But it takes a coordinated group, it takes concerned, interested people to pull all of these pieces together, to draw upon the resources that we have.

I think in this bill we can do that.

[The prepared statement of Mrs. Nix follows:]

SPEECH TO BE DELIVERED AT SENATE SUBCOMMITTEE ON HEALTH
IN SUPPORT OF
NATIONAL SCHOOL-AGE MOTHER AND CHILD HEALTH ACT OF 1975

November 4, 1975

Lulu Mae Nix

In the past decade, considerable attention has been focused on the plight of the pregnant adolescent. More recently, some attention has been focused on the children born to these girls.

You are already familiar with the statistics on the high incidence of adolescent pregnancy and the large numbers of our young population who are beginning family life at a very early age. You are aware that school-age mothers, unmarried and married, are high risks educationally, medically, and socially, and that their children are also high risks. Society and the taxpayers are increasingly burdened because, unless these young parents receive supportive services, they will end up on our welfare rolls.

It has been estimated by K. Krantz that for each girl who becomes pregnant out of wedlock before the age of 20 and requires assistance, our citizens will pay $100,000 in welfare payments during the remainder of her lifetime. If this is true, and I believe the figure is underestimated, then society will be burdened with an astronomical figure in welfare payments unless we make comprehensive service programs available to those girls across the country who need such services.

Senator Kennedy, in his floor statement introducing "The National School-Age Mother and Child Health Act of 1975", stated ". . . . it must be emphasized that the measure which I propose in this bill will not be costly in terms of the Federal funds involved, but will have an immeasurably large impact upon this problem. One of the major aims of this bill is to encourage state and local agencies, public and private, to coordinate their efforts in this area, and to maintain and expand those efforts already underway in the delivery of health and social services to the young mother and her child. Thus, the value of each Federal dollar will be multiplied immeasurably for the benefit of this extremely vulnerable high risk group of school-age mothers and their children."

What Senator Kennedy has stated is not a myth. It is a reality in a few communities. With your support, it can be a reality nationwide.

The Delaware Adolescent Program, Inc., is an example of how a comprehensive program for school-age parents and their children was established on limited funds and how those funds were used to generate additional funds and in-kind support. The program was begun as a pilot project for 50 girls in 1969 on a grant of $12,500 from the Junior League of Wilmington. Those funds were used to generate federal, local, and state support. Now, seven years later, the program is the only statewide comprehensive program for school-age parents and their children operating in the entire United States. There is one center in each county of the state.

First, a brief description of the program. DAPI is comprehensive in that all services are provided under one roof, which has the distinct advantage of making coordination and interaction of all components possible. The program includes the array of services which are spelled out in the bills which are before you. Among these are continuation of education, pre- and post-natal care by obstetricians who come to the center, well baby care up to five years of age by pediatricians and Public Health nurses who also come to the center, social services to young mother and father and the families of both, as well as infant day care at the center so the mothers can interact with their babies during the school day and learn how to properly care for and stimulate them. Other needed services are also provided at the center, such as vocational training, consumer and homemaking education, preparation for childbirth and delivery. The girls are bussed to the rural centers. Girls are generally in the program for an average of six months and are followed up for a minimum of two years.

Now, how can one take $22,500 and stretch it to establish comprehensive centers in each county. A state coordinating committee was established by the Governor consisting of people from all disciplines and chaired by me to develop a state plan for comprehensive services. The plan was submitted to the Governor, who used the plan, and the early successes of the program, to urge the State Legislature to appropriate state funds to expand the program. A grant of $50,000 was subsequently appropriated to DAPI to expand its services to any girl residing in the county of New Castle, the site of the pilot program.

The original $22,500 had thus grown to $72,500.

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The medical component was manned by voluntary obstetricians and pediatricians who treated each girl or baby as a private patient. The Division of Public Health provided registered nurses who also taught classes in preparation for delivery.

The social service component was supported by DAPI's state funds until a grant was received from Model Cities.

The infant day care center was supported by the Department of Health and Social Services through purchase of care contracts.

Community support and volunteer services were tremendous, and in one year, twenty-five agencies were volunteering staff to assist at the center.

Over the seven-year period, DAPI has continuously sought and received funds from a variety of sources. Among these are the State Legislature, State Department of Public Instruction, local school districts, the Wilmington Medical Center, Title IV-A of the Social Security Act, Title XX, and Title XIX. More recently, DAPI became the first program in the country to receive Revenue Sharing funds from each of our three counties in the state. Volunteer agencies are too numerous to mention. I emphasize again that all services are under the one roof concept.

The point I am making is that Senator Kennedy's goal to use minimum Federal dollars to encourage state and local support can be accomplished as exemplified in the growth and development of DAPI. From a beginning budget of $22,500, DAPI now operates a statewide comprehensive program on a budget of $314,363.

Now, let us translate the use of those dollars to numbers of girls and infants served, and then to results achieved. Last year, pregnant students from almost every school district in the state attended one of the DAPI centers. Approximately 460 girls were served. Based upon the budget of $314,363, the average cost per girl was $683. While it is difficult to cost out a comprehensive program such as DAPI, it is significant to note that the cost per year per student in the State of Delaware ranges from a low of $942 to a high of $1709.

What has been the result of the program? Admittedly, a true evaluation of a program cannot be done until sufficient time has elapsed for the participants to finish or drop out of school. DAPI now has a unique opportunity to study its achievements or failures. A preliminary follow-up survey has been made and computerized. Although the study is incomplete, the first 100 girls who went through the program in the year 1969 show the following:

1. 79% remained in school.
2. 80% are not on welfare.
3. Only 16% had repeat pregnancies.
4. Prematurity rate was reduced from 21% in 1968 to 12%.

The need to establish comprehensive and interdisciplinary services on a statewide basis across our nation has been documented. The beneficial results that can be achieved for school-age parents and for society as a whole are beginning to be seen. The Delaware Adolescent Program, Inc., is one model for providing services. There are others. In any case, every state needs to have the opportunity to establish programs for this group of young people. With Federal support, communities can expand those Federal dollars to encourage the support of local and state agencies. It is being done in the State of Delaware. It can be done in each and every other state.

I urge you to support legislation which will make comprehensive services available to every pregnant girl in every state if she desires such services. Fragmented services offered for limited time periods will not do the job that needs to be done. Comprehensive services must be developed to ensure that the young parent gets through the period of need. We must ensure that the continuity of care needed medically, socially, and educationally is not broken by the pregnancy, the birth of the child, or the post-partum period. The task is not easy. It takes dedication, persistence, innovativeness, and many other talents. However, with the passage of the "National School-Age Mother and Child Health Act of 1975", we cannot fail.

-- Lulu Mae Nix

10/31/75

DELAWARE ADOLESCENT PROGRAM, INC.

STATEMENT OF INCOME 1974-1975

FOR STATEWIDE COMPREHENSIVE SERVICES

INCOME

1. Administration, Education, Social Services

Delaware State Legislature	$150,000
Title IV-A	60,000
Revenue Sharing - New Castle County	20,000
Department of Public Instruction	57,863
Wilmington Public Schools (estimated)	26,500
TOTAL - 3 centers	$314,363

2. Day Care Program - 3 centers

Title IV-A	$154,769
92 babies @ $38.50/week/baby	
Age: 1 week to 3½ years	

3. Medical Program

Funded by Title XIX and State Division of Public Health plus in-kind medical support.

DELAWARE ADOLESCENT PROGRAM, INC.

BUDGET 1974-1975

	TOTAL	COUNTIES		
		NEW CASTLE	KENT	SUSSEX
Expenses				
Salaries				
Professional	55910	16500	19810	19600
Clerical	24980	10180	7400	7400
Social Services	44586	25536	9525	9525
Custodial	6600	6600		
Total Salaries	132076	58816	36735	36525
Benefits				
FICA	7775	3489	2149	2137
Blue Cross	4907	2351	1430	1126
Unemployment Compen	2000	1000	500	500
Total Benefits	14682	6840	4079	3763
Program				
Rent	19872		10800	9072
Telephone	4200	2400	900	900
Office Supplies + Postage	3700	2500	600	600
Custodial Supplies	500	100	200	200
Insurance	3000	1500	750	750
Conference + Travel	3770	770	1500	1500
Repairs + Maintenance	600	100	250	250
Contractual Services	5200	4226	487	487
Student Lunches	600	200	200	200
Student Transportation	41800	474	15163	26163
Total Program	83242	12270	30850	40122
Education				
Dept. of Public Inst.	57863	29110	14443	14310
Wilm. Public Schools EST.	26500	26500	-0-	-0-
TOTAL ALL	314363	133536	86107	94720

Senator **KENNEDY**. Very good testimony.

Maybe very briefly we could have your two young people come up here for a moment, while we are talking about the program.

Mrs. **NIX**. May I introduce, please, Myra Lindsay, who is one of our young mothers, and Mr. Richard Cochran, who is a young father.

Senator **KENNEDY**. We want to welcome you here.

You have been paying attention to our hearing this morning.

I watched you listening very attentively. I think you probabl understand what we are trying to do. I am wondering if you mi be able to tell me a little bit about how you first heard of the program.

Could you tell me how you first got word of it?

Miss **LINDSAY**. I first heard about it through a friend. She told me how great it was.

Senator **KENNEDY**. How did you hear about it?

Miss **LINDSAY**. One of my girl friends.

I was down there and I signed up.

I really did like the program.

Senator **KENNEDY**. You went down where?

You were a student at which high school?

Miss **LINDSAY**. At Woodley School, which is now Howard Educational Park. We have a new school. I liked it because they helped me a lot of ways in school, as far as my education, keeping me in school, so I would not have to stay off.

Senator **KENNEDY**. You went down to talk to them at the center?

Miss **LINDSAY**. Yes.

Senator **KENNEDY**. And they gave you some help and assistance, did they?

Miss **LINDSAY**. Yes.

Senator **KENNEDY**. What sort of things did they help you do?

You just mentioned one, I guess, staying in school?

Miss **LINDSAY**. Yes.

Senator **KENNEDY**. Do you think you would have stayed in school?

Miss **LINDSAY**. I really think they helped me as far as my staying in school, because they have a day care center down there.

I take my baby down there while I go to school, so I can continue on with my education and graduate.

Senator **KENNEDY**. Do you want to do that?

Miss **LINDSAY**. Yes, most definitely.

We all get along very nice. It is really a nice program. We do many things.

Senator **KENNEDY**. Do most of the young people know about that program?

Miss **LINDSAY**. Yes.

Senator **KENNEDY**. Has the school worked pretty well in helping you adjust to your program or your classes so that you could have your baby and then come back to school?

Miss **LINDSAY**. Most definitely.

Senator **KENNEDY**. What about health care?

What kind of medical care did you receive during this time?

Miss **LINDSAY**. Seeing doctors down there while I was pregnant, so I would not have to stay out of school, like miss a day in school.

They always had doctors down there on a certain day, and then after I had my baby, I could take my baby down there to the baby doctor that comes down there.

Senator **Kennedy**. It is all in one place; is that right?

Miss **Lindsay**. Right.

It is all there.

Senator **Kennedy**. Does that make it easier?

Miss **Lindsay**. Yes.

It is better than running all over the place.

Senator **Kennedy**. Is your baby a girl or a boy?

Miss **Lindsay**. A girl.

Senator **Kennedy**. Richard, tell us a little bit how you heard about this program?

Mr. **Cochran**. I did not necessarily hear about it.

When Myra joined DAPI, I more or less picked up on a program of my own. Like, her counselor wanted to interview me one day, so I went down, and we sat and we talked, and I just became attached.

I went every day. I talked to her counselor and various other counselors, and met the director, Mrs. Nix.

Gradually, by going there, it gave me a chance to look over it, so I can set an example for the young fathers, so it will give me a chance to go out in the street, and if I see that they have a girlfriend that may be pregnant, if they do not know anything about it, from Mrya or me, we can carry the information and news to them.

Not only that, as far as a nursery is concerned, not only does it help her, but it gives me a chance to go in, because, like, I take my daughter back and forth to the nursery every day, and I pick her up and I spend some time in the nursery.

They taught me the proper way of holding and feeding and changing her, and various things to look out for, to look out for sickness and things like that.

It is a thing that you just cannot close one eye and blind the other, you're to take both eyes and hold hands and join together and walk down the hall.

There are a lot of young people that try to overlook it, but they cannot. These young people cannot go to public schools during 9 months of pregnancy because they have to climb steps and all of this is on one flat level. Everything it right around them.

It is just like a great big family.

The counselors, the students will go to them with any problem, and the counselors are so openhearted, so well minded that they see the problems and they blend right together and help, and without this I think that the situation would be like a ball of fire. It would go up in smoke.

Senator **Kennedy**. I want to thank you very much.

I think you have given very good testimony on why this kind of coordinated program can mean so much in terms of human programs.

Mrs. **Shriver**. There is a young lady here this morning who had a baby and did not have any kind of assistance.

She is now working in the adolescent pregnancy center at Hopkins.

Ms. **Saffer**. I am Joanne Saffer. I am working at Hopkins on a volunteer program.

Six years ago I had my son. I was 16 years old.

At that time I was in a parochial school and I had to drop out of school as soon as I became pregnant.

Senator KENNEDY. Why?

Ms. SAFFER. I was just not allowed to continue there.

Senator KENNEDY. Is that a rule, a school rule?

Ms. SAFFER. Yes. I do not know that it was a rule, because it was not expected then, and I do not even think there was a rule like that.

Anyway, I was not allowed to go to public school in my neighborhood, either. They advised me to continue at nighttime if I was going to continue at all. So I enrolled in a nighttime class in order to graduate.

I really was not sure what kind of alternatives I had. I kind of just accepted the fact that I was just going to have a baby. I was not aware of any sources that I could go to who were—anyone that I could ask for help other than my own family.

Senator KENNEDY. Did you ask anybody at the school?

Ms. SAFFER. No; it was a very small school, Catholic school, and it was just not the right atmosphere to ask for help dealing with a pregnancy.

Senator KENNEDY. It is an unfortunate indictment, but true.

Ms. SAFFER. I just feel there is such a need for this kind of a program because I know exactly how I felt. There was no one to go to for support or any kind of prenotol skills.

I had no one to ask, except for my own family, for help.

It just touches home so deeply for me to see the girls who feel so alienated and so lonely and do not have anyone to turn to, other than their immediate family.

So when they come to the program, I think they seem relieved that there is someone there to cope with their problem and help them cope and understand exactly how they are feeling.

Senator KENNEDY. I would daresay that most parents would not know where to go, either, in a situation such as this.

Have you known other girls that have had similar experiences to your own, that had the sense of loss and lack of awareness and understanding of where to go and what to do and where to turn to?

Ms. SAFFER. Yes.

A couple girls I went to school with, many were not in their very young teens, but I would say 18 or 19, had the same kind of experience, with no place to go other than the family.

Senator KENNEDY. Do you think this kind of coordinated approach would make a great deal of difference in terms of the health and well-being of the child?

Ms. SAFFER. Yes.

Senator SCHWEIKER. Do you see any change in attitude toward this problem over the past 6 years among your contemporaries? How would you describe the attitudinal situation, when you first go into the program, and now, if there is any difference?

Ms. SAFFER. I have just begun working in the program very recently.

A change in attitude?

I am not sure of what you are asking me. A change in attitude concerning teenage pregnancies?

Senator SCHWEIKER. Let us say, in terms of the people who would use the service, a school attitude.

Tell us a little bit about the problem and any change and whether the center has inspired any change or not.

Ms. SAFFER. I think the center has made a lot of people aware of the fact that there is that large of a problem to begin with, that it is not an isolated, just a few isolated cases, but there is an increasing amount of adolescent pregnancy.

And there is a large need for a program that would serve specifically the adolescent pregnant female, rather than her adult counterpart.

There are specific problems associated with being an adolescent alone that are complicated by being pregnant, also.

Senator SCHWEIKER. This is a difficult question to ask you to answer off the top of your head—what would you say is the most important thing the Government, the center, or people that work in the programs can do for a person going through the center?

What do they really need the most in terms of either counseling help or services? What would seem the most important thing that you utilized, and that was of service to you?

What stood out in your mind about it?

Ms. SAFFER. I think the crucial thing about the program is that they provide the girls with alternatives. There is such a severe feeling that this is the end, this is the end for me.

There is no hope for me to go on and continue my education or do anything else useful with my life.

I think that the program lets the girls be in an environment where they can see possible alternatives for themselves. Places they can go, things they can do with their life, and there are people there to give them support just to do that.

Senator SCHWEIKER. Does it really provide a fundamental way for a person to cope with the situation and to do it intelligently, rationally, and effectively?

Ms. SAFFER. That is right.

Senator KENNEDY. We want to thank you.

I think that we have heard a great deal from all the experts on this, but I do not think you can find anything more compelling than the young people who would be most impacted by this program. It seems to me to make such elementary and sound good sense to try and bring about the kind of situation to provide this comprehensive range of services, and the ability to cope with very immediate problems in the lives of young people.

I want to thank you very much.

Mrs. SHRIVER. We are almost ready to conclude. I would like to introduce Hattie Harrison, who works with the Dunbar School in Baltimore.

She is also a State legislator.

It is election day and she was very good to come over here today.

She can tell you how it is to actually run this service for teenage mothers.

Ms. HARRISON. Good morning, gentlemen.

I sat this morning and heard everyone speak, and I keep hearing the words, "firing line," and I guess this is where I am supposed to be, right on the firing line.

That is, dealing with the families and these youngsters every day.

I guess our particular situation began about 20 years ago when we began taking a look at the dropout rate, at the entire living cycle of the youngsters in our particular community.

Through sitting down with other folks in other agencies, as well as the youngsters themselves, an understanding was brought about that we were dealing with very frightened, unknowledgeable youngsters who had no place to turn.

What we found out was simply the fact that all of the existing programs were really not working.

It was just because of a lack of coordination. The fragmentation was there and it was just extremely hard to get any type of service at all.

So through the help of many folk in the neighborhood and at Hopkins, we were able to start some small semblance of trying to pull all of these forces together.

So consequently in the planning of the new school, one of the most important things that came out of that planning session was the fact that we needed the type of services that could be provided for our young girls and our young fathers, too.

And that is, No. 1, teaching them early enough that the importance of not having their youngsters that early, if it does happen, OK, let's try not make it happen again so soon, but dealing with them on a point of understanding.

What we did, simply, was to work with these kids, work with their families and provide them with all the services.

Now, the coordination of the service is, as I said, very important, and that is having on hand everyone that is needed.

As you know, mostly agencies never talk to one another.

One can be next door to the other, one for 20 years, and no one knows what goes on in the office next door. It is my job, as a dictate from the community, to make sure that all of these services know what they are providing, what the other is providing, and that we are there to work with these youngsters and their families.

One of the things that we have discovered is the fact that sex education in schools as it is taught today is more harmful than good.

Many times what we are going to have to start is back in the elementary school, and we are waiting until we get to junior and senior high schools, now, and we are finding that is too late.

We are going to have to go back to elementary schools.

Over the past few years we have found that 15- and 17-year-old age bracket of our teenage mothers have suddenly dropped to 12, 13, and 14 years.

That means that somewhere along the line we are not fulfilling the job that we should be. We are simply trying to break that cycle.

Coordinating all these services, making sure our young ladies are with people that love them, making sure that they are with people that understand them, making sure that these youngsters know the importance of the care, not only for themselves, but for their babies.

So, simply, gentlemen, I am hoping that with the passage of this bill we saw the need for so badly, that we will be able to do what has not been able to be done.

We are hoping that we can break that stigma, the question that I heard earlier, and that was dealing with the stigma of the dropout.

We are trying to entice youngsters to drop back in.

Senator Schweiker. May I interrupt?

Do you see any change in this attitudinal problem at all in recent years?

Ms. Harrison. The first change I have seen, I would say, has been in the last 4 years, since we have been working with the youngsters.

The stigma of dropout is something that was there. If you dropped out, that was it. No one attempted to help you. You were just hanging out there by yourself.

What we have attempted to do is provide all these services that would entice these youngsters to drop back in school, by simply stating that if you are a teenage parent, come let us help you.

If you have not become a teenage parent, let us help you not become one and come back in school for the important period of your education.

We have been able to properly train people, the staff, the professional staff, not to look upon these youngsters, down, as most folk have been doing in the past years, but to accept them with what they have, what level they come back to, and to look at the total human being that we are dealing with.

The attitudinal change of mind, many of our youngsters, when they drop out, they are extremely negative, so our first job is to change that negativism to a positive way of thinking.

Senator Kennedy. How successful are you in that?

The last witness made it very clear that this was the main service and effort that impressed her about this kind of work.

In terms of teaching or education, or working or communicating with your users of service, how successful are you in helping them to cope?

In other words, what is the rate and severity of the problem, and how effective are you in dealing with it?

Ms. Harrison. There is one thing I can say from true experience, from the last 4 years in working with the high school, with the senior high class that came into the ninth grade, they came in 364 strong.

So, for 4 years we had them. We brought them through with 351.

Senator Schweiker. Out of 364?

Ms. Harrison. 351 graduated; 187 of those youngsters are in school now with full 4-year scholarships.

The majority of the rest of the class has meaningful employment, barring about 6 percent that got married, and about 25 of the boys that went into the service.

It was simply a matter of changing their attitudes, working with these youngsters and giving them the positiveness of coming back for an education

I might also add that one of the television channels in Baltimore did a 5-year survey on our absenteeism. In our particular case, we were able to drop our absenteeism from 41 percent to 18 percent absenteeism, and in talking to the youngsters they found out that it was because people cared, people wanted to work with them.

It was through the efforts of us coordinating the services, my job in particular, of all the fragmented services.

This is where we see your bill, Senator, being so important, because we see that as the one cohesive thing that we need to bring all of this together.

It is simply changing the attitudes and thinking of all concerned.

Senator **Kennedy**. Excellent.

Mrs. **Shriver**. One of the questions asked, Senator Kennedy, is the question of adoption.

So we have Mrs. Cole from the Child Welfare League of America who will address herself to that problem briefly.

Mrs. **Cole**. My name is Elizabeth Cole.

I am from the Child Welfare League of America, and director of the North American Center on Adoption.

A full copy of my statement has been entered for the record.

I will not go into this in detail because time is getting short.

I do want to emphasize that because of the present structure of the Federal funding of services, adoption is not a well-known alternative to many of our young teenage mothers.

Because of that many are turning to keeping children in circumstances they might not really like.

Many are turning to putting them in foster care, institutional care.

We have heard Dr. Hardy and others testify that many mothers, because they receive no medical care, give birth to children with central nervous system dysfunction.

Many of these children have to be treated at institutions at some point in their lives. At some point—the poor cost effectiveness of this lack of service for an unmarried mother is staggering.

Adoption offers not only permanence for the child, but it is a cost effective service.

You asked about the evidence to the effect that adoption and other alternatives may not be known or fostered by the present administration.

I think we know two facts: Family planning is a mandated social service. Adoption is not. Family planning is matched 90–10 matching under Federal funding.

Adoption has not received one nickel of Federal funding before passage of title XX.

Every adoption program in the State has had to be funded entirely by State dollars. Even with passage of title XX, it is optional as to whether or not the State chooses to have this as a viable service.

What we are finding is because mothers do not have alternatives open to them, that they are prey to profiteers. Many mothers if they receive any counseling or help at all, are receiving it from the black marketers more interested in placing their child for profit, not necessarily to the mother or the child's advantage.

That is really the end of any statement I have, Senator.

If you care to ask any questions, I would be happy to answer them.

Senator **Kennedy**. What do you suggest we do, not only for this program, but for others as well?

Mrs. **Cole**. I think we have heard this morning ample testimony to support the fact that what service exists is fragmented and I think we have also heard testimony that services are not mandated that should be mandated, and that all manner of services ought to be available to mothers.

The mothers ought to have a number of alternatives. What we really need is some Federal leadership. We need some type of administration and sponsorship of legislation which will tie all of these facets together.

Good prenatal care for mothers, good nutrition for mothers, appropriate counseling, appropriate educational facilities, and a range of alternatives that are chosen by the mother after she has had full knowledge of what those alternatives are and the cost to her. If we do not do this, Senators, what we are concerned about in the child welfare field is that we are raising a generation of prospective parents who themselves will not be able to give the appropriate nurturance to their own children.

It is going to be far more costly than we can consider in terms of just today's dollars and cents values.

Senator SCHWEIKER. What can you tell us about the trend in the adoption part of this situation?

In other words, what is it compared to 5 years ago?

Mrs. COLE. What we know decidedly is that there are fewer infants available for adoption than in any point in our history.

Senator SCHWEIKER. Do you have any statistics?

Mrs. COLE. Yes.

That average number of infants placed for adoption has declined at about the rate of 10 to 15 percent a year over the last 5 years.

That is due to several factors, one of which is a trend in the country to have mothers keep their children rather than to place them for adoption.

Senator SCHWEIKER. Would you give an estimate as to what percent now keep the children?

Mrs. COLE. In adoption agencies about 5 years, of all the mothers who came in asking for adoption services, approximately 80 percent would choose to place their children for adoption, and about 20 percent would choose to keep their children and raise them.

That figure is just reversed. The figure now is 80 to 90 percent of the mothers coming to the adoption agency choose to keep and raise their children, and only 10 to 20 percent place their children for adoption.

Senator SCHWEIKER. Would this indicate that there has been a tremendous attitudinal change?

Mrs. COLE. Yes.

[The prepared statement of Mrs. Cole follows:]

north american center on adoption

DIRECTOR
ELIZABETH S. COLE

Statement of Elizabeth S. Cole
Director, North American Center on Adoption
Special Project, Child Welfare League of America, Inc.
Before the Subcommittee on Health, Senate
Labor and Public Welfare Committee
November, 4, 1975

My name is Elizabeth S. Cole. I am the director of the North American Center on Adoption, a special project of the Child Welfare League of America. I am authorized to testify about adoption on behalf of the Board of Directors of the Child Welfare League of America, Inc. We thank you for inviting us to comment on this important child welfare service.

Introduction

As an introduction, I would like to tell you something of my background and the League. I was, until January of 1975, Chief of the Bureau of Resource Development for the State of New Jersey's Division of Youth and Family Services. In that capacity I supervised New Jersey's adoption program.

Established in 1920, the Child Welfare League of America is the national voluntary organization in the child welfare field. It devotes its efforts completely to the improvement of care and services for children and their families. There are nearly 400 child welfare agencies affiliated with the League. The group includes agencies that are publicly supported and those that are supported by voluntary funds. Some of the latter are under religious auspices; some are non-sectarian; none operates for profit.

The League's program and services are directed toward one large purpose - to protect the welfare of children and youth and their families by helping agencies and communities provide essential social services. To accomplish its overall objective of assuring that children and youth are reared under conditions that are favorable to the development, use, and enjoyment of their individual capacities, the League takes many roles. It provides leadership and services to the entire child welfare field, not just its affiliates. It is the spokesman for all children but particularly for those at risk. It calls the public's attention to unmet needs. It wins to the cause for children, partisans who as active,

67 IRVING PLACE
NEW YORK, NEW YORK 10003
(212) 254-7410

CWLA CHILD WELFARE LEAGUE OF AMERICA, INC.

influential people in their communities are able to effect change. Often it acts as a catalyst. Always it serves as a clearinghouse and forum for knowledge and experience. As such it coordinates the efforts and influence of those whose concern it is to see that children and youth have the care and protection they need.

The League, as an accrediting, standard-setting agency provides consultation, conducts research, develops standards for services, sponsors annual regional conferences, maintains a reference library and information service, conducts agency or community surveys, administers special proejcts and publishes a journal, other professional literature and a newsletter. From this broad base, we bring you our observations and concerns.

In two previous appearances this year before Congressional Committees, the League has discussed the adoption issue. We would, therefore, like to include as Appendices to this Statement for inclusion in the record of these Hearings, those Statements and other supplementary material related to adoption which we believe will be useful to you.

Since our Board has not discussed the legislation introduced by Senator Kennedy and therefore there is no League position on the bill, I will limit my remarks to the general area of adoption. I will discuss the number of adoptions in the United States, current developments affecting biological parents, the impact of those developments on children, the situation with adoptive parents, and problems of agencies offering adoption as a service. My treatment of these topics will be abbreviated in this Statement because the Appendices contain a full discussion of these and related facets of adoption. Subsequently, when the League has developed a detailed position on this legislation, we will provide it to you.

Adoption Statistics

There are no reliable current U.S. statistics on any aspect of adoption. The most recent national adoption statistics are for 1971. Vast changes have taken place in the intervening years. Incomplete data for 1973 have just been released by the Department of Health, Education, and Welfare; the 1972 figures, also incomplete, were published in February of this year.

Incomplete data, therefore, requires us to use 1971 figures to give you some idea of the adoption scene.

In 1971, a total of 169,000 children were adopted in the U.S.

51% (86,200) were adopted by relatives;
49% (82,800) were adopted by non-relatives;
80% of all non-relative adoptions were handled by agencies;
20% (16,200) were private placements;
5% (4,000 - 5,000) were so-called "black market" adoptions.

A full discussion of the "black market" problem is contained in our appendices. In summary, the reasons for the existence of this "black market" include:

- an acute shortage of infants;
- a wait of three-seven years for most adoptive parents;
- financial problems for unwed mothers;
- legal problems following the Supreme Court decision involving putative fathers and notice.

In 1971, and probably even more so today, it is a "seller's market."

Biological Parents

"Orphans" never constituted many of the children placed for adoption. Most children placed were and are born to unmarried parents. Until 1970, the middle-class and White unwed mother aged 16-24, generally sought adoption as the solution to the "problems" her pregnancy presented. She was socially immobile and believed she would be ostracized if she kept her child. Worse of all, her child would be stigmatized. This unwed mother generally kept her pregnancy secret by using a maternity home. Eighty percent (80%) decided to relinquish their children for adoption. The remainder married the father or kept the child.

Now fewer of these women come to agencies seeking help. Today's mother is younger, reportedly more disturbed, and with more serious overall personality problems. She is also more socially mobile, can move, and believes society's values have changed so she is no longer ostracized and her child's no longer "branded." .

For various reasons, we estimate between 80% - 90% of children born out of wedlock are kept by their mothers. This is more than a complete reversal of the situation that prevailed until 1970.

As a result, agencies such as ours--we now include the Florence Crittenton Division--have refocused services to meet the needs of the young mother in order to increase the likelihood that her child will receive good parenting.

The Father

Stanley v. Illinois, a 1971 Supreme Court decision, changed the picture in regard to the biological father. Generally, this decision is interpreted as saying the father has a right to know he has a child, that he has the right to raise it and/or to participate in planning for it, and that therefore, there is a need to search for, find, and service the bio-father.

The resulting confusion about what notice and service needs must be given the bio father, but especially the notice requirements, have led to a situation which requres statutory remedy.

In summary, biological parents include fathers. They include younger, more disturbed mothers. Fewer mothers are relinquishing their children. Relinquishment procedures even when mothers agree are unclear. Agencies are in a confusing, time-consuming, costly service crisis.

Children

Although the factors discussed above result in fewer children being available for adoption at birth, there are many thousands of children who need permanent homes. The tragedy of our failure to arrange our policies, practices and funding to rescue these "orphans of the living" is discussed at length in the Appendices. However, as part of any discussion of adoption we must include the matter of permanence for these children--about 100,000, most of whom are Black, many of whom are older, members of sibling groups, or with disaiblities such as mental retardation.

We believe these children must be assured of the permanence that is their right. On other occasions we have explicitly recommended ways this might be achieved. Like the children, we are still waiting for public policy to respond to the all-too evident needs.

Adoptive Parents

This is a bright spot in the adoption picture. Adoptive parenting is growing in esteem, there is a growing adoptive parents movement. They are now very effective advocates.

Agencies and Adoption

In the face of all the changes taking place that impact on adoption, it is an enormous problem to maintain an adoption service in 1975. There are problems of attitudes, staffing, legal barriers, evolving service concepts -- and costs.

The financial myths are many. Adoption doesn't and cannot pay for itself. Most families cannot pay the cost of the service. I cannot overemphasize too much the failure of Federal, State and local governments as well as United Ways to appreciate this problem. Both voluntary and public funding sources must be made to support the full cost of adoption services to the agency.

Title XX also needs to be amended so that adoption services can be facilitated. Any new funding sources must not build in the ineffectiveness of current programs. We have made many specific suggestions in this regard.

Summary

This does not add up to a very encouraging picture. Values are changing. Statistics are missing. Parents, biological and adoptive, cannot be helped. And, children are the most victimized. Yet there has been little action in the directions and to the extent required to change this picture. When, we ask on behalf of all these people, will those who have the power to effect change exercise that power? When will we stop wasting lives and money?

Mrs. **Mecklenburg**. I would like to comment on that, if I could. Here is a theory that the people in the child welfare field have shared with me: I think we need to take into consideration that when we are discussing this topic, first of all, 5 years ago, out of the number of women becoming pregnant, most of them carried their pregnancies to term.

By the time they dealt with the adoption agency, then, what you had was a range of women some keeping, some giving up for adoption. Now you have a group of women becoming pregnant, and those that probably would have given up for adoption are aborting, and those who had decided to go on with the prepregnancy, most of them decided to keep them. It is not that percentages have changed so drastically. It is simply we are dealing in a different climate today. I cannot give you statistics on this, but I think it would be worth looking into.

Ms. **Forbush**. May I comment?

According to program reports from comprehensive service programs, 87 percent of the adolescent mothers who bear children are keeping the youngsters to parent them.

Mrs. **Mecklenburg**. I have another comment: That is, social welfare people that I deal with again say that it is their experience that when the very young woman receives adequate counseling and support, she is better able to make the decision for herself, whether she can meet the child's needs and she begins to see what is entailed in keeping a child, so that she then is more likely perhaps to realistically look at the fact that she may not be able to be an adequate mother at this stage in her life and provide the proper nurture.

So I think it is extremely important from the standpoint of what happens to the child and also what the mother, the poor mother, who decides without proper guidance and proper choice being offered to keep her child at a very young age, so we do everything in the service area we can.

We find she cannot be a mother at this age. She is still a child herself.

What happens if she has another failure, in a sense. She fails, she goes through all sorts of trauma, and she cannot adequately mother the child.

It seems again from this standpoint that it is extremely important to get in there and offer her the kind of supportive service and counseling that lets her be able to make an adequate decision in this situation.

Senator **Schweiker**. I have one other question.

I think I have a very clear picture of what is happening in terms of the child. The figure I do not think I heard this morning, maybe it is unavailable, is what percent opts for abortion as opposed to keeping the child?

Do we have any figures or estimates?

Dr. **Hardy**. There are a number of estimates and we have some figures from the Hopkins experience, and they jibe, so perhaps they are useful. That is, more than 70 percent of the youngsters opt to keep their children and just under 30 percent to be aborted.

Senator **Schweiker**. So it is about 70–30.

Mrs. SHRIVER. Next is Ms. Denese Shipp, director of adolescent pregnancy clinic, Johns Hopkins Medical School.

Ms. SHIPP. I am Denese Shipp.

I will be brief.

I worked with adolescents for about the past 10 years, so I know the problems they have had.

I am now working in the center that is geared toward what your bill offers, so I see the difference.

One of the problems is very low frustration tolerance. When they try to get through the bureaucratic system, it is almost impossible.

If they are under 15 and trying to conceal their pregnancy, but looking for help, it is doubly impossible.

Within a center, they know a center exists that offers all phases of care and it makes it much more easy for them to go.

Today our society does not expect adolescents to become mothers. Thus, little effort is made to prepare them for early pregnancy and motherhood. When a pregnancy, either planned or unplanned, occurs, the adolescent mother, father, and infant often suffer. The problems they encounter have no socioeconomic distinctions. The upper and middle socioeconomic adolescents will often go to their private obstetrician. There, they will get good medical care but, in many instances, the physician does not have the time, resources and, often, knowledge to deal with the myriad of problems pregnant adolescents present.

Unless she exhibits an emotional problem, she will probably receive the same routine obstetrical care that her adult counterpart receives. Adolescents from the lower socioeconomic class will often receive prenatal care at a clinic. There, due to sheer numbers, she often will not receive individual services and, again, is treated as an adult.

Pregnant adolescents need support, encouragement, education, and guidance through a difficult developmental period. The majority do not need psychiatric care but counseling by social workers, appropriate role models, or child psychiatrists.

An adolescent pregnancy program must be structured to meet individual needs. An educational component must help the adolescents clarify their values, plan realistically for their futures, and help them understand and cooperate in their physical care. This type of educational program should aid in the understanding of anatomy and physiology of pregnancy, nutrition, sex education, family life, parenting skills, and family planning.

Throughout the entire program there must be an effort to help each adolescent grow and mature toward healthy selfhood. This can best be achieved in a center that offers a program of comprehensive services geared particularly to the adolescent.

Care, support, and education through the prenatal period must continue once the child is born. We all know of incidences of emotional and physical neglect and abuse not always through malice but often through ignorance.

I feel problems such as this, plus early and broken marriages, and early repeat pregnancies can be diminished if we take the responsibility for preparing these adolescents rather than letting them flounder and both they and society suffer the consequences.

Mrs. **Shriver.** Next we have Marjory Mecklenburg.

Mrs. **Mecklenburg.** I have a unique position on this panel. That is, I am a citizen volunteer, not a professional currently in the field. My background is in home economics, child development and family relationships, which I taught for a number of years. I am married to an obstetrician-gynecologist, and I have had an opportunity to develop an increased understanding of the problems of teenage pregnant mothers through my husband's work.

Also, I am a mother and currently have teenage children. What I have heard here today about the need for supportive services for pregnant women bears out my own observations over the last 9 years as I have worked on the issue of abortion.

As a leader of both national and State organizations dealing with that problem I have been involved in advocating legal protection for the unborn.

However, my participation in numerous debates and discussions made me increasingly aware that there were serious problems being faced by women and families that were not being met by current programs. Thus, many women were choosing abortion because reasonable alternative choices were lacking.

I became convinced that protection of life was only a first step—that we in the prolife movement also had to be concerned about the health and well-being of the baby after birth and find adequate ways to assist troubled pregnant women and their families.

In my own State of Minnesota I called together professionals in the health field, in education, and in social work who had a special interest in pregnant women. We met and, although we did not agree about abortion legislation, we studied the problems being faced by pregnant women in our State and the services that were available to them.

I have to agree with Hattie's comment that agency workers do not talk to one another enough. As a citizen volunteer I was shocked to meet with them and find that though most of them were overworked, and could see tremendous and growing problems in their area of concern, they had not banded together to share in exploring possible joint action. Our joint project was successful and as a multidisciplinary group we worked together effectively to bring about State legislative change, and organized voluntary action. Through this experience I developed a positive attitude about what could be accomplished cooperatively by people who may have differing views on abortion but who are concerned about the great unmet needs of pregnant women, children and families.

It is clear today on a nationwide scale that the present programs available to pregnant women are not meeting the needs in various communities.

In my travels and conversations with people around the country I have found scarcely a professional worker in the field who does not strongly feel that these needs are much greater than the services available.

In preparation for this testimony I have shown the bills under consideration today to a number of social workers and health workers. They were unanimous in their opinions that passage of such a bill would provide a great deal of needed help.

I believe that we, who may have differences on the question of legalized abortion, have an opportunity to put differences aside and meet human needs through support of bills such as these before us.

I feel that under your leadership, Senator Kennedy, and that of Senator Bayh and others who have joined with you, the Congress will pass a bill of this type which will in turn make a great deal of difference in the lives of many people. The results will also show, I believe, that many unborn lives will be saved by such action.

This is the year of the woman, and I do not think we can any longer afford to not consider the needs of the many thousands of women who elect to give their babies a chance for life and to continue through a difficult pregnancy.

I strongly support the passage of the bills and pledge the support of our organization in assisting such an effort. Thank you.

[The prepared statements of Mrs. Mecklenburg before the Senate Committee on Labor and Public Welfare and before the Committee on the Judiciary follows:]

STATEMENT OF MARJORY MECKLENBURG
PRESIDENT
AMERICAN CITIZENS CONCERNED FOR LIFE, INC.
before the
SENATE COMMITTEE ON LABOR AND PUBLIC WELFARE
Subcommittee on Health
November 4, 1975

Community Support for
"The National School Age Mother and Child Health Act of 1975" and
"The Life Support Centers Act of 1975"

I welcome the opportunity to testify in favor of the bills being heard here today (S.2360 and S.2538) because I am concerned about the problems of adolescent women and children. As an involved citizen, I have looked at the statistics showing the rising number of adolescent pregnancies. I have become acquainted with the problems of pregnant young women in my own community and in others and I have talked with health professionals and counsellors who are trying to meet their many and varied needs. In the process, I have seen that increased programs of medical care and social services were needed at the federal, state and local levels and have worked actively to initiate and promote such services.

It is my judgment, and that of the professionals in the field with whom I have consulted, that the passage of either of the bills before us today would make a significant improvement in the services available to young pregnant women and their children.

I serve as President of American Citizens Concerned for Life, a national organization actively involved in this area. We have as one of our priorities the restoration of legal protection for the unborn and the safeguarding of the rights of other vulnerable members of the human family. We are also involved in attempting to deal with significant problems that are present in the lives of many distressed individuals and those that they depend on for their well being. "Protect - Cherish - Enhance Human Life" is the motto which we have adopted and which accurately reflects the spirit and purpose of this organization. In addition to advocating the right to life, we in ACCL feel that society must accept responsibility for the subsequent quality of the lives of unborn children. Maintaining the quality of a child's life after birth is of as much concern to us as is safeguarding the legal protection of life before birth. Abortion in our eyes really involves two issues one of justice and rights, and one of loving and caring. It is around the second issue that much cooperation and progress can occur, while the first still remains a focus of debate and division. We in ACCL do not feel that the rights of women should include the freedom to choose to destroy their unborn children, so we have worked for laws to correct the present injustice we believe is present. A widespread consensus does not yet exist on that point in this country. But people who disagree about the relative rights of the mother, the unborn child, and society usually can agree that abortion is generally not a good thing and should be avoided whenever possible. Many proponents of "freedom of choice" allege that they are basically opposed to abortion. They believe that the woman's *decision* to abort is not wrong but they may still see abortion *itself* as undesirable. It should be expected that most "freedom of choice" advocates would actively support the bills before us today.

This will be particularly true when it is made clear that many poor women, pressed by financial circumstances, presently have only the "freedom" to abort and that for women of limited means abortion is far more accessible than medical assistance, financial aid and a supportive and caring environment. Surely, advocacy of the "right of a woman to choose" does include the right for her to choose to continue the pregnancy, and give her baby a chance to continue life. In the process she should be able to maintain her own self-respect, dignity and physiological and psychological health. Programs like those under consideration today must be implemented if women are to have such a choice available. If this is not done, then in the words of a famous Janis Joplin song, "freedom is just another word." Abortion proponents have an opportunity by actively supporting these bills and other similar programs to insure that freedom is not just an empty word for the troubled pregnant women of this country.

For detailed information about the lack of alternatives to abortion and the need for developing alternatives to abortion, I refer you to our previous testimony presented before Senator Bayh's Judiciary Subcommittee on Constitutional Amendments. I am requesting that that testimony be entered into the record of this hearing. I would also refer you to the remarks that Senator Kennedy and Senator Bayh made accompanying introduction of their supportive services bills.

Proponents of legal protection for the unborn should easily be able to support these bills also. Their concern for the life of the unborn child surely includes advocacy of programs promoting the well-being and health of the child in utero. Pro-life people know that the mother's needs must be given every consideration if they are truly concerned for the health and well-being of the unborn infant. It is she who is the baby's first and only line of defense. It is on her that the unborn child depends for nutrition, warmth, shelter, physiological and psychological support and life itself. To be consistent, a pro-life philosophy needs to provide protection for and enhancement of a baby's life after birth no less before birth. It should extend to the troubled pregnant mother, the father and the family facing the crisis.

It should also be apparent to pro-life groups and individuals that passage of these bills will result in the saving of many unborn lives. One of my friends in Minnesota, who heads an active Birthright emergency pregnancy service, explained to me that most of their clients come in seeking abortion, but after finding that supportive services are available nearly all of them elect to continue the pregnancy. Many of these young women who were looking for a solution to their problem really wanted something other than abortion and readily chose other options when they were offered. It is intolerable that uninformed, frightened young women are being aborted because they don't know where else to turn for help.

Mr. Senator, you no doubt are very proud of your sister, Eunice Shriver, and the leadership she has shown in developing alternatives to abortion. Her challenge, "Instead of destroying life, let us destroy the conditions that make life intolerable," should find acceptance by people on both sides of the abortion issue. We in the pro-life movement welcome her challenge to help make life more tolerable for pregnant women and children. Our neglect and apathy must not contribute to the tragedy of abortion. Support for S.2360 and S.2538 will give us an opportunity to demonstrate our consistent concern for human life.

Many other interested groups have seen the need for the types of services these bills authorize. On March 2nd, 1973, the National Council of Churches released a study paper on abortion containing a section on "The Churches' Responsibilities" that stated the following:

> "...Although diversity about abortion remains, surely it can be agreed that it is imperative to end the need for abortion. Abortion is never a desirable solution, though it is often at present regarded by some as a necessary one. Therefore, the churches are called to act as advocates for the development of public policies which contribute to a climate in which a valid choice can be made.
>
> Alternatives to abortion must be real if freedom [illegible] conscience and responsibility are to be more [illegible] rhetoric. This means that society must offer [illegible] health care, both pre and post-natal; day care facilities; homemaker services where needed; maternity and paternity leave; family service centers; and expert counseling services...
>
> ...Basic to the entire subject of abortion is a reorientation of priorities to those which are life enhancing. The agony of private and social decisions regarding abortion can be eliminated as alternatives become real. It is toward this end that the churches must work..."

The February 13, 1973, Pastoral Message of the Administrative Committee of the National Conference of Catholic Bishops stated that: "...We praise the efforts of Pro-Life Groups and many other concerned Americans and encourage them to:

A. Offer positive alternatives to abortion for distressed pregnant women. ..."

The Continental Congress on the Family, a national conference of 1800 evangelical Christians that met in St. Louis the week of October 13, 1975, issued an "Affirmation on the Family" that contained the following statement supporting programs of alternatives to abortion:

> "We acknowledge that Christians differ in their view concerning the time when personhood begins, but we agree that God has admonished us to choose life instead of death, and has set penalties for those who would, even accidentally, cause a pregnant woman to be injured in such a way that an unborn child is harmed. We believe that compassion for distressed mothers and families and concern for unborn children require us to offer spiritual guidance and material solace consistent with the teachings of God's Word. We encourage the church to influence the social-moral climate in which unintended pregnancies occur. We see no grounds on which Christians who are concerned for all human life and for the well-being of the family can condone the free and easy practice of abortion as it now exists in our society. At the same time, we exhort the church to show compassion on those who suffer because of the abortion experience."

On June 5, 1975, the Minnesota United Methodist Annual Conference petitioned the 1976 General Conference to modify the statement on abortion in the Social Principles of the United Methodist Church to provide that:

> "...Our belief in the sanctity of unborn life makes us reluctant to approve abortion. But we are equally bound to respect the sacredness of the life and well-being of the mother. ...A decision concerning abortion should be made only after thorough and thoughtful consideration by the parties involved, with medical and pastoral counsel. Mothers and fathers confronted with unplanned and unwanted pregnancies are urged to seek creative positive alternatives to abortion. Moreover, the United Methodist Church supports responsible family planning and sex education, increased counseling services for distressed mothers and fathers in the event of unplanned pregnancies, improved adoption procedures, more research into genetic defects, and generally, an ethical stance which seeks solutions that are life-enhancing for mothers, fathers, and their unborn children."

There is reason to expect that other church bodies and their members will readily support and welcome legislation of the type being considered today.

Bills providing alternatives to abortion have been passed in a number of state legislatures, indicating constituent interest in services in these areas. For example, this year the Maine State Legislature passed a bill requiring health insurance plans to provide maternity benefits regardless of marital status, The Minnesota State Legislature has enacted similar legislation, along with laws extending Aid For Dependent Children (AFDC) coverage to an unempolyed pregnant woman prior to the birth of her child, requiring vaccinations to prevent birth defects from rubella infections during pregnancy, requiring health insurance coverage for newborn infants from birth and providing state income tax deductions for adoption expenses and state subsidies for adoption of handicapped children. Other legislative proposals have included elimination of the "illegitimate" designation on birth certificates, maternal and child nutritional food supplements, child abuse prevention programs and the creation of a commission to study family social services.

In Minnesota, a statewide Women's Political Caucus convention passed a Resolution endorsing alternatives to abortion. Both major political parties in Minnesota have also endorsed this concept at various levels and in 1972 the Republican National Convention Platform Committee heard testimony on the need for supportive services for pregnant women as an alternative to abortion.

Citizens who have seen the unmet needs of pregnant women have organized themselves to provide "hot line" crisis help to pregnant women through a large and growing number of groups known as Birthright, Alternatives to Abortion, Inc., Emergency Pregnancy Service, Lifeline, and the like. There are over 800 such groups affiliated with one national organization alone. For most of these volunteers, who have given countless hours to assist troubled pregnant women, it is a matter of deep concern that coordinated adequate pregnancy services are often not available. Most emergency pregnancy service workers should be in favor of these bills.

I would also expect that innumerable other groups who are concerned about the welfare of young children, the integrity of the family or the advancement of women will be supportive of this legislation.

There is great need for the additional services provided by the School-Age Mother & Child Health Act of 1975" and the "Life Support Centers Act of 1975." In the minds of most of the public, preventing adolescent pregnancy would be far preferable to treatment following its occurrence. Once a very young woman is pregnant there really are no "good" choices. All of them carry the possibility of emotional and/or physiological scars for both mother and child. New efforts must be launched to find ways to reverse the trend of increasing teenage pregnancy. Provision of contraceptives to young children is not an adequate answer to the problem even though that may minimize conceptions which would result in still further problems. The promotion of responsible sexuality and parenthood and a stable family unit must be given a high priority if we wish to turn the tide. These bills would allow for such programs and include the counseling, family planning and the personal attention that would hopefully reduce recidivism. ACCL believes that family planning methods appropriate to people of differing backgrounds and beliefs should be available to those who choose to use them, provided that these methods do not end a pregnancy already begun.

ACCL's August 21, 1974 testimony before Senator Birch Bayh's Senate Judiciary Subcommittee on Constitutional Amendments contained our pledge to work as partners with Congress in building an America in which abortion is not necessary to meet the social, psychological or medical needs of pregnant women. Our later testimony before that same subcommittee elaborated on those needs and called upon Senator Bayh to urge hearings on these topics before this subcommittee. Subsequently, the bills being considered today were introduced and these hearings were scheduled.

Clearly, Senator Kennedy, the leadership you and Senator Bayh have shown in choosing to author and to advocate the passage of these bills could make a positive difference in many lives. So great a number of people have been touched by the crisis of adolescent pregnancy that there is scarcely anyone unfamiliar with its potential tragedy and heartache. S.2360 and S.2538 offer a ray of hope to people across this country that we are willing to face these problems openly and realistically and to dedicate some of our resources to their solution. Fiscal responsibility does require prudent spending of the resources we have available and I believe that the modest funding necessary for these proposals is an investment in our nation's future that we can ill afford to reject.

We ask the country and the congress to rally around and support the bills before us, putting our differences aside, knowing that the women and children of this country desperately need our help.

In this year of the woman, with its focus on women's rights, let it not be said that we turned our backs on those thousands of young women who want to live up to the responsibilities a pregnancy entails -- those who will not reject their unborn child but who struggle against great odds to give the life entrusted to them a chance.

STATEMENT ON MEETING THE NEEDS OF PREGNANT WOMEN AND THEIR FAMILIES

An examination of life supportive policies
in the public and voluntary sectors

by

Marjory Mecklenburg, President

AMERICAN CITIZENS CONCERNED FOR LIFE, INC.

Prepared for the Subcommittee on Constitutional Amendments
Committee on the Judiciary
United States Senate

June 19, 1975

THIS TESTIMONY WAS PREPARED BY MARJORY MECKLENBURG AND JUDITH FINK

In consultation with men and women from the medical, legal, social science, and moral theology disciplines.

ADDITIONAL COPIES MAY BE ORDERED FROM:

American Citizens Concerned for Life, Inc.
4803 Nicollet Avenue
Minneapolis, Minnesota 55409

STATEMENT OF MARJORY MECKLENBURG

PRESIDENT

AMERICAN CITIZENS CONCERNED FOR LIFE, INC.

before the

SENATE JUDICIARY COMMITTEE

Subcommittee on Constitutional Amendments

June 19, 1975

My name is Marjory Mecklenburg. I am the President of American Citizens Concerned for Life, Inc. (ACCL), a national organization which seeks to promote respect for human life and to work for its enhancement. Testimony presented to a previous Subcommittee hearing by ACCL outlined our philosophy on a broad range of the life issues. We are pleased that you have invited us to present further testimony today on the specific topic of alternatives to abortion.

Senator Bayh, many people are disturbed by the rising tide of violence in this nation. Americans are subjected to violence on the streets and on television and movie screens. Congressional hearings on violence in our schools have recently been completed. The subject of violence has a great deal to do with what we are discussing here today. Abortion, the destruction of unborn human offspring, is a violent act. This violence to unborn children has become a widespread and legal practice that is publicly funded and promoted in our country.

We in ACCL believe that our nation is capable of a loftier public policy — that our women deserve much more than the right to destroy. And that our nation's children, both born and unborn, have the right to protection and nurture by our great government.

Senator, we are pleased that your Subcommittee on Constitutional Amendments has not only chosen to hold lengthy and balanced hearings on a constitutional amendment dealing with the rights of the unborn, but that you have, in addition, focused today on the real problems faced by pregnant women and their families.

Most of the testimony offered during the course of these hearings has been focused on the two poles of argument which underly the controversy over abortion. Those who share ACCL's concern about the loss of the right to life of unborn babies have focused on the need for re-establishment of that legal protection. Those speaking against the enactment of a Human Life Amendment have promoted what they believe to be the right of a woman to preserve her privacy by aborting her pregnancy. Abortion proponents have also argued that in order to prevent discrimination of poor women the procedure must be both legal and reimbursable through public funding.

This sharp polarization has resulted in a degree of bitterness. We at ACCL have observed that additional subtler negative effects have taken place in the midst of the furor aroused by legalizing abortion. These effects have been deleterious to the pregnant women who decide to give birth to their babies.

We need to ask what are the conditions of life which confront women who are troubled by an unintended pregnancy but who do not choose abortion. What are their rights? What is society's duty to them and to the children they will bear? Are we meeting that duty? Or have these women been largely ignored by the public sector and much of the private sector, and been pushed into the background or eliminated totally from the abortion debate? We believe that they have been ignored, and that they constitute a disadvantaged class suffering a special kind of discrimination.

We believe that the abortion question centers around human rights -- their interpretation, and their denial. We believe that the unborn child lays claim to certain human rights merely by the fact of his existence, judicial fiat notwithstanding. But we also know that in whatever social or legal climate his life begins and moves toward birth, his mother is his first line of defense against pre-birth aggression. It is literally with her that his life rests. Regardless of the state of the law governing the relative rights of the mother and child, Americans must examine the pregnant woman's life situation, assess what is necessary to preserve her personal dignity and her mental and physical health, and then provide for these needs. If we neglect to do so, then we must seriously ask ourselves if we have not been to blame for the loss of many unborn infant lives and possible ravages upon women and the family through our apathy and neglect. Women must not be forced by circumstances to seek an abortion because of the lack of an acceptable alternative and an implied national policy against life. A society that truly cares for all its people will see that the pregnant woman who gives birth to her baby emerges from the experience as a strong, independent individual.

COUNSELING FOR LIFE SUPPORT

Medical, legal, psychiatric, spiritual and other counseling should be immediately available to any woman and her family who face a distressed pregnancy. In today's climate, often the first contact the troubled pregnant woman has is with an intake person at an abortion clinic, or a minister associated with the Clergy Consultation Service (CCS),(1) founded to provide abortion information. These intake situations are widely advertised and available. Criticism has been leveled at such abortion-related counseling services by pro-life advocates, who allege that women who are clients of these facilities are receiving counseling framed in a way which makes an abortion seem to be the most attractive option by emphasizing its alleged safety, the relative low cost of the procedure when compared to maintenance during pregnancy and delivery. and the relative assurance of anonymity. There may be no attempt at full disclosure of the facts of fetal development, the nature of the operation, the possible complications to the woman both of a physical and psychological nature, and the assistance available if she chooses to continue her pregnancy. Despite the purpose and activity of these abortion counseling clinics, many of them enjoy tax-exempt, tax-deductible IRS status which is normally reserved for educational or charitable ventures.

The pro-life sector of society has attempted to provide alternatives to these abortion intake services with crisis "hot-line" telephone setups and backup referral services for pregnant women. Much more investigating, planning, and funding needs to be done to make professional life supportive services available to offset the more available and well-financed abortion promotion system. In most areas of the nation, individuals working in referral organizations such as Alternatives to Abortion or Birthright are unsalaried, raise their own funds, staff telephones, conduct training sessions, and do a generally excellent job with limited resources. There is no lack of dedication -- these workers are among the most committed and industrious in the prolife movement. Their clients must look for backup services to inadequate pre-existing support systems. No amount of hard work and dedication can match the millions of dollars in private foundation funds and federal grants for abortion programs that clinics and hospitals enjoy.

Non-medical difficulties which may confront a pregnant woman should be of as much concern to the social services worker, physician, or counselor as any medical complications which may be encountered. During the early months of pregnancy, it is not uncommon for any women to react with fear, resentment and depression. Positive feelings of acceptance develop as the pregnancy advances and fetal movements are detected. Pressure to abort due to the psychic strains of the early months can generally be reduced by sympathetic and patient supportive counselling. A woman should be able to rely on the assistance of a continuing caseworker, who can follow her through the pregnancy, visit her after delivery, and continue to assist in post-partum adjustments. Money should be made available by the federal government to "life-supporting" organizations to ensure that this kind of comprehensive counseling is available to all who need and request it.

The "intensive care" concept is applicable to and necessary for the troubled pregnant woman. There are wide differences in the needs of different patients. A "supermarket of services" should be both widely advertised and readily available (free, if necessary) to enable the woman herself to select those services which best suit her needs.

UNWED MOTHERS

Education Services to unwed mothers, many of whom are students, should be designed to eliminate the social stigma which much of our society still places on single parenthood. Many school systems, both public and private, insist that single pregnant girls leave regular class settings and enter special segregated classes -- segregated in the sense that only pregnant girls can attend. This, in effect, is a labelling experience if the girl does not wish to enter such a class, and can be interpreted by her as society's "punishment" for her pregnancy. The baby's father, often also a student, is never subjected to such segregation or notice.

A strong emphasis should be placed on encouraging pregnant students to continue with their studies. They should be able to choose whether they prefer to remain in regular classes, or to attend a special school, or even to receive homebound education. Both federal and individual state legislation must be enacted providing that pregnancy, parenthood, or marital status cannot constitute grounds for denial of education.

Parenting Skill Training A regular academic or vocational curriculum is only one kind of training a young pregnant mother may need. During pregnancy, personal motivation is high for acceptance of practical courses in parenting and homemaking skills. Most unwed mothers keep their children. Comprehensive training in the skills needed to manage the basics such as "how to bathe the baby", as well as the other myriad details that constitute the art of parenting, are necessary to help young mothers fully understand and cope with stresses of everyday living with children. Classes should be informal and innovative, and encourage actual participation of the students in selection of some of the curricula.

The pregnant woman who is motivated to learn how to adjust to her changing life, including the fact of her pregnancy, is also more receptive to the information offered by private organizations such as the International Childbirth Education Association (ICEA) and the La Leche League (LLL). On request, such groups will gladly provide training for understanding of pregnancy and delivery, infant nutrition, and basic mothering arts. Cooperation between the public and voluntary sectors interested in parenting skills training should be encouraged by educators.

THE VERY YOUNG UNWED MOTHER

The problem of pregnancy in the very young unprepared woman is compounded by the complexities of subliminal motivations for teenage pregnancy. It seems clear that we are not able at this time to prevent pregnancy from occurring among young teenagers in this country. These young mothers are thrust into an adult world with the responsibility of raising a child while minimally equipped to handle the pressures with which they will surely find themselves surrounded.

Out of wedlock pregnancies may not be unintended. (2) Refusal to use restraint or contraception is an all too common practice among teenagers. Without developing a full-blown discussion in this testimony of the reasons for such behavior, it is ACCL's firm conviction that pro-life organizations must work together with groups such as the Child Welfare League of America, the National Alliance Concerned with the School-Age Parents (NACSAP) and others to work vigorously for special services of the highest quality for these young mothers and their children. The very young mother is quite likely to have little or no idea about the nature of responsible parenthood and perhaps even less insight into the reasons for her own actions and attitudes which have led to the pregnancy. (3) The single young mother often struggles to survive on meager funds, isolated from her peers, alienated from her family, and stunted in her emotional and social development. The children of such parents may suffer even worse deprivations.

The hard fact is that these young mothers exist in large numbers. The Child Welfare League's Consortium on Early Childbearing and

Childrearing, an interagency project which was funded by DHEW, has compiled information designed to help states, communities, and individuals identify and serve the needs of school-age parents. The "Education for Parenthood" program,.under DHEW, is a hopeful new venture. There are signs that it is possible to create services which may help these young mothers. We believe that by working together, the public and voluntary sectors can do much to prevent the abortion of infants already conceived by young teenagers. Further unwanted pregnancies may also be reduced by involvement after the child is delivered [illegible] assist the young mother's development into a woman who is able to make responsible decisions about both her own and her child's future.

NUTRITION AND OTHER SPECIAL NEEDS

Malnourishment of the pregnant mother and her unborn child is a major contributing factor to premature birth. The *National Foundation - March of Dimes* (4) Annual Report for 1974 states:

> "Low birthweight is the underlying or contributing cause of half the deaths of United States infants. It is unmistakably as serious a cause of death as the gravest birth defects. Several recent studies show that low birthweight is closely linked to medical and social risk factors. About 7% of babies born to mothers who are at no risk weigh 5.5 pounds or less. The ratios of low-weight babies born to mothers at medical and social risk, respectively, are 11.1% and 11.6%. *Fully 15% of infants born to mothers who are at both medical AND social risk are low-weight* (emphasis added).

The studies show even more dramatically that infant death rates rise sharply, depending on the degree of risk; infant mortality in the no-risk group is only 11.9 per thousand live births; it rises to 24.4 per thousand for the social risk group: 27.3 for women at medical risk, and an appalling 41.6 per thousand for those who are at both medical and social risk " (emphasis added).

Abortion proponents have claimed that infant mortality has been reduced by making abortion available to the poor. The above statistics on infant mortality for women at medical and social risk -- i.e., the poor -- challenge that claim. Something is happening -- or is not happening -- to perpetuate patterns of discrimination toward poor pregnant women that make them a uniquely disadvantaged class. Most poor women coping with an unintended pregnancy, regardless of medical status, fall into the high risk category due to the complex nature of the basic difficulties with which they must cope.

As a result of the U.S. Supreme Court decision in Burns v. Alcala, the welfare mothers in 38 states can receive no funds for the benefit of the child until it is born. The Court's majority opinion cites the legislative history of the Social Security Act and uses the 1935 record of debate to argue in favor of denial of benefits directly to an unborn child.(5) It is a simple fact that the presence of the unborn child's dependent intrauterine existence alters its mother's own needs. In the economic climate of 1975, those needs are extremely compelling and it may be impossible for an unassisted pregnant woman to fill them. Ignoring the changing nutritional needs of a pregnant mother courts disaster -- socially, humanly, and economically -- in the form of possible lowered mental ability of her child. The infant's brain and nervous system develop most rapidly during the last trimester of pregnancy. It is then that malnutrition will work its worst ravages on both baby and mother, ravages we can never fully repair regardless of subsequent investments in services and treatment.

Special Needs The changing body of a pregnant woman requires that she adapt her wardrobe, and in most cases she must obtain entirely different clothing. Her self image may have already suffered severly due to desertion by the baby's father and perhaps by her family and friends. Yet this self image is important to her mental well being. Women who have borne children know that maternity clothing needs are more than just a smock or two. Special underclothing, a warm sweater knit to button properly, a full-cut coat -- all are items that may seem unimportant or unnecessary unless the total needs are scrutinized.

Many voluntary pro-life groups have attempted to provide clothing and other incidentals insofar as they are able. Consideration of the undeniable facts that pregnant women do require special foods, clothing, and sundries should encourage legislation which provides special provisions for increased support levels for these women.

ACCL firmly supports two-person, or two-party, payments for pregnant women under AFDC, and urges that geographic discrimination against poor women by the denial of the second payment be ended by the enactment of appropriate state or federal legislation.

CHILD CARE SERVICES

ACCL recognizes the need for the provision of child care services for parents who must leave their homes to work or to further their educations. We view the well-run day care facility as a positive alternative to abortion. For many frightened pregnant women, the knowledge that they may be unable to work or attend school, and thus be forced to seek welfare support, is sufficient motivation to seek abortion.

The need for the creation of hundreds of thousands of new spaces for child care has been well documented. We refer the Subcommittee to the statement of Joseph H. Reid, Executive Director of the Child Welfare League of America before the Senate Subcommittee on Children and Youth for up to date statistics and rationale for expanded day care service.(6)

Care for children under the age of three years presents special problems, in that the child-adult ratio must be very low to achieve the individualized care necessary for healthy mental and emotional development.(7) At present, this kind of service is lacking in most day-care service programs, and yet it is the most needed for the new mother if she is not to become a candidate for continuing public assistance. We urge that efforts continue to provide adequate child care services for all who need them. Such centers should be sensitive to, and respond to, needs and desires of the members of the community in which they are established. As in any cooperative facility, parents should spend a fixed amount of time assisting at the child care center, observing the children in the group setting, and attending informational meetings concerned with the facility's program. This will help to ensure the development of programs designed to best serve the needs of children.

ACCL encourages the development of child care facilities in suburban communities and rural areas, as well as congested urban areas. Travel time is often a significant factor in the lives of parents who work or attend school, and distance of the child care facility from the home should not constitute an undue hardship or make it impossible for the parent to avail herself of the services.

Senate Bill #626, otherwise known as the "Child and Family Services Act of 1975", and its house counterpart H.R. 2962, have been drafted to address the needs briefly outlined above. ACCL is pleased to note that the Chairman has long been interested in child care services. Two members of the ACCL Honorary Board -- Senator Mark Hatfield and Rep. James Oberstar -- have joined in sponsorship of these bills, and we urge that all pro-life congressmen support these or similar child care provisions.

RAPE TREATMENT AS AN ALTERNATIVE TO ABORTION

We are pleased that there is a growing interest in the problems of the rape victim. Provision of abortion for rape need not be written into law since women given adequate medical treatment for rape will not become pregnant. What is most important is ready access to rapid, compassionate, nonjudgmental handling by police officials and involved medical personnel.

We encourage legislative action directed toward the problems of rape victims such as that proposed in H.R. 3590, introduced by Rep. John Heinz, which is a bill to amend the Community Health Center Act to authorize a program for rape prevention and control. If this bill becomes law (its Senate counterpart has already been passed as a part of S. 66) a Center for the Prevention of Rape will come into being under the auspices of the National Institute for Mental Health.

Aggressive and comprehensive programs such as that embodied in this bill can be considered as a definite alternative to abortion.

POST-ABORTAL COUNSELING AS A DETERRENT TO RECIDIVISM

Abortion proponents maintain that the psychological aftereffects of an abortion are minimal or nonexistent. They make these claims despite the fact that no definitive long-term studies demonstrating this hypothesis have been undertaken in the United States. Caseworkers, clergy, and others who have had to handle post-abortive psychological sequelae know that such complications do occur. Frank Ayd, M.D., a psychiatrist, recently told the United States District Court for the Eastern District of Pennsylvania: (8)

> "Usually adolescents come in for late abortions, some of them to the point that they have already felt fetal movement, so that they know that in fact they are pregnant, and they have gone through this period of should I or should I not, and if they have been pressured by a putative father or by their parents or by anyone else to make a decision to go ahead and have an abortion and yet, at the same time, they want to have the baby. They have an abortion without resolving the conflict in their own mind. Consequently, after the fact, when the sense of relief has passed and the emotional turmoil has settled down and they begin to reflect on what they have done, they may go through a period of remorse and regret and feelings of depression.
>
> "Now, this can occur, for example right before menstrual periods. That can refresh their memories. It brings back all of the conflicts that they have lived through earlier. You can see some have what we call an anniversary reaction, meaning by that the anniversary of the day of the abortion. They could become quite upset around that time or the anniversary of what would have been the birthday of the baby that they are not now going to have because in their mind they have destroyed this baby.

"I think the important thing, to put it this way technically, we can scrape the baby out of the womb of the mother, but we can't scrape it out of her mind and since it's in her mind, there are going to be various things which will remind her of the fact that she once was pregnant, once was in fact a mother, and that she has terminated this, and depending...on...her religious upbringing, her particular sense of values, her maternal instinct, how much support she has from her parents, and other important people in her life, then the recollection of having had an abortion can serve as a trigger for all sorts of emotional problems. She can look upon herself as a murderess. She can look upon herself as a person who took the easy way out at the expense of somebody else. It depends -- you see, there are so many variables, because you are talking about an individual whose level of intelligence, whose education, whose religious values, all of these things play a role in when and how she's going to respond to the realization that she's had an abortion."

Mrs. Sherri Finkbine Burrows, who went to Sweden for an abortion in 1962 after learning that she had inadvertently taken the teratogenic drug thalidomide, has publicly stated that she suffers from lingering guilt feelings (9) and she attempts to help other women cope with postabortion mental and emotional problems.

If it is debatable whether there are post-abortal psychological sequelae, we should be trying to find out the extent of and frequency of such complications through long-term unbiased studies. Has the federal government initiated any such study? ACCL feels that Congress should register its concern over the inconclusive date brought forth to date regarding abortion-related mortality and morbidity (as distinct from that of death and/or medical complications in childbirth), infant mortality among various socioeconomic groups, post-abortal physical and psychiatric sequelae, etc., by undertaking a number of very thorough long-term research projects to study the ultimate impact. ACCL and other pro-life organizations feel strongly that equity and fairness demands that research programs involving abortion data should include professional personnel of the pro-life persuasion as well as proponents of legalized abortion.

GENETIC COUNSELING AS AN ALTERNATIVE TO ABORTION

ACCL supports the concept of making genetic counseling available, (free, if necessary), to any person of childbearing age who has a legitimate concern about his or her ability to produce normal children. Advising couples of genetic risk before they begin a child's life can do much to help them decide whether they wish to assume the statistical risk of their offspring inheriting metabolic or structural defects. We feel that procedures designed to diagnosis intrauterine illness in the unborn child are laudable, as long as the intention is to treat, and not to kill the child if it is found to be imperfect. Making it acceptable to kill the imperfect baby in the womb lays the foundation for the direct killing of the defective newborn infant. Shouldn't we instead place an emphasis on pre-conception counseling and on providing helping measures for women and families raising children with problems? The Handicapped Education Act, reported unanimously by the Select Subcommittee on Education, was introduced into the House of Representatives on May 21, 1975. Rep. Albert Quie, an ACCL Honorary Board member, is a prime sponsor of this bill. We point to this type of legislation as the kind which will enable parents to know that the intent of Congress is to offer tangible help in troubled situations. This bill, and others that are similar, can help to prevent the abortion of the imperfect by assuring parents that their handicapped child will be able to claim his or her full right to be educated.

Both couples and single mothers should be able to purchase some type of birth-defect insurance during early pregnancy, so that if they do have a defective child, the cost of special medical care and training can be borne more readily. The few policies available today are prohibitively expensive, and set unrealistic ceiling on the funds available for medical care. We encourage legislators to consider birth-defect coverage as an integral part of any comprehensive health plan.

FAMILY LIFE AND SEX EDUCATION AS ALTERNATIVES TO ABORTION

Few subjects have aroused as much impassioned debate in America as education in human sexuality. Arguments over curriculum content, qualification of instructors, and values advocated have flared repeatedly. Depending on one's point of view courses maybe either too permissive in attitude, or not explicit enough, or place undue emphasis on demonstrations of contraceptive techniques to youthful students.

Largely overlooked is the fact that, regardless of the subject matter and the manner in which it is presented, few studies have been done to determine what have been the actual effects of sex-oriented education. Has the incidence of unintended pregnancy dropped or increased among students who have received detailed instruction? Does exposure to discussion about sexual intercourse, contraception, sexual orientation, etc., encourage young people to feel that if it's permissible to discuss these matters publicly it's permissible to begin sexual activity? Has the divorce rate gone up or down as a result of sex education? Are people better adjusted in marriage if they have studied human sexuality? Are there qualitative differences between courses teaching clinical information in a "value-free" manner as opposed to courses emphasizing responsible parenthood and the use of one's sexual powers as integral components of responsible action? We do not really know the answers to these various important questions, and the answers must be found before we proceed further in developing new courses of study.

Without ascertaining the results of our past and present teachings, how can we continue to develop new curricula that will ultimately contribute to the betterment of people? ACCL believes that it is important to offer courses in human sexuality, education for childbirth, and responsible parenthood. But we encourage educators to move out of the experimental phase of sex education and family life curriculum development, and assess what effects have resulted from what has been already done. If it is necessary to develop new approaches, let us work to do so. Much federal money has been spent on development of sex education materials, and we are sure that you are aware, Senator Bayh, that there are many dissatisfied parents who object strenuously to some of the course material. The concerns of those parents should not be ignored. Most parents would approve programs which encourage responsible sexual behavior and attitudes.

Many studies have shown that teenagers at risk continue not to use contraceptives or other family planning methods despite education regarding their use.(10) In a nationwide survey undertaken in 1971 four-fifths of sexually experienced never-married young women aged 15-19 indicated that they had engaged in sexual intercourse without using contraception. About three in ten of those in that survey who reported premarital sexual experience became pregnant out of wedlock.

Clearly, mere knowledge of "the facts" is not enough to prevent unintended pregnancy. ACCL believes that education that emphasizes an understanding of the awesome responsibility of parenthood, coupled with sex education reflecting the moral and religious mores of the community and school in which it is taught can do much to reduce the number of unintended pregnancies and subsequent abortions.

FAMILY PLANNING AS AN ALTERNATIVE TO ABORTION

Research into safe and effective ways to prevent unintended pregnancies can help to reduce the incidence of induced abortion. ACCL urges that a wide variety of methods be made available to enable people with varying personal beliefs to select a method which is consistent with their own system of values. We suggest that researchers avoid injecting bias into the labeling and discussion of the several family planning methods available. While the majority of people who seek to prevent pregnancy choose hormonal, chemical, or mechanical means, a growing interest has been shown by many in an improved form of the so-called "rhythm" method, now popularly referred to by its advocates as "natural family planning." We believe that it is unwise to continue to classify all non-hormonal, non-chemical, and non-mechanical family planning methods as "folk" means, as was done in the DHEW study referred to earlier in this testimony.(11) We ask respect for the beliefs that motivate Americans to determine the size of their families, and the right to determine the method by which this is accomplished, provided that the method selected does not end a pregnancy.

IMPROVED INSURANCE COVERAGE AS AN ALTERNATIVE TO ABORTION

In many instances, medical insurance policies will pay benefits for abortions, but will not provide maternity coverage for dependent minors or unmarried women.

Single women who wish to purchase a health coverage policy which includes maternity benefits can do so, but at a much higher premium. however, abortion coverage for single women is included in most policies, without an increase in premium.

Denial of payments for maternity care based on time lapse of pregnancy after marriage or marital status is certainly discriminatory.(12)

These inequities should be corrected by legislative regulation. Lack of funds to pay for medical care, and an unwillingness to seek help by becoming a welfare recipient are frequent reasons for seeking an abortion. Abortions are elective surgery; delivery of an infant is not. The present situation is inequitable and discriminatory and must be corrected.

IMPROVED RECORD-KEEPING OF ABORTION STATISTICS TO DETERMINE STATISTICAL TRENDS WITH PRECISION AND THUS HELP DEVELOP ALTERNATIVES TO ABORTION

It is essential that Congress mandate a record-keeping system pertaining to the performance of abortion and its medical and psychiatric aftereffects that would operate consistently in each state. The need for accurate, broad-based, centralized record-keeping is a legitimate part of the nation's obvious interest in maternal and infant health. There is presently very uneven and incomplete reporting of data on the demographic and statistical aspects of abortion.

The Chief of Statistical Services, Center for Disease Control (CDC) of the DHEW, Jack C. Smith, stated in January, 1975, to the United States District Court for the Eastern District of Pennsylvania: (13)

> "Abortion may have a substantial impact on the health of this country's citizens, but without complete, accurate, and detailed reporting the true impact of abortion on health will remain unknown."

ACCL believes that it is essential to set up these reporting systems and to mandate reporting by each state. Broad-based studies should also begin immediately to assess the effect of widespread abortion on family life, current attitudes toward contraceptive use, and number of unintended pregnancies conceived. We should also investigate the attitudes of Americans toward the value of human life which have developed since the United States Supreme Court decision on abortion of January 22, 1973.

A nationwide abortion reporting system can be designed to protect the anonimity of the patient. Such a system is a legitimate interest of both state and federal government and is surely related to protecting maternal health. Money is currently being spent to analyze data already available, but even those persons most directly responsible for compilation of this available data admit that it is only a sampling and is subject to criticism. (14) Conclusions regarding abortion safety, maternal and infant mortality, etc.,will not be reliable unless they are drawn from accurate information. It is generally agreed by both proponents (15) and opponents of legalization of abortion that more work needs to be done in the demographic field before any solid conclusions are drawn.

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ADOPTION POLICIES

Many of our national and state adoption policies need examination because they may be the source of problems for unwed or married mothers. Adoption exists to meet the needs of the child, but practices exist which negate that very basic premise and are also destructive to the mother.

It was evident from the recent Senate hearings on "black-market" adoptions that the needs and rights of children are being violated. Frightened pregnant women are being intercepted by "counseling services" which then either steer the woman toward abortion or make arrangements with second or third parties to buy the baby upon delivery.

Another example of the problems a pregnant woman may face is illustrated by the Stanley decision, which has been interpreted by some lower courts to mean that efforts to find and consult the putative father must be made prior to placement of a child for adoption. The attendant publicity and legal action resulting from this policy alone discourages many women from continuing a pregnancy, or from relinquishing the child for placement in a waiting qualified family.

Senator Walter Mondale's Subcommittee on Children and the Family will be holding continue hearings on the topic of abortion and foster care, which should further identify possible problems in these areas.

POLICIES AND PRACTICES OF THE DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

DHEW has recently announced that it plans to concentrate on searching out broad patterns of bias in federally funded programs and industries. In doing so, it is imperative that the pregnant needy women, and those who may not be classed as economically disadvantages but whose life situation is in crisis due to unintended pregnancy, not be ignored. Patterns of discrimination surrounding the situations of the pregnant woman are complex. Not to take up her case with vigor would be a gross injustice on the part of DHEW, and perhaps would constitute a violation of her civil rights.

The amount, type, and quality of life support assistance varies from state to state, and often varies from county to county within a state. Consequently, some few women will be adequately provided for, many will receive marginal assistance, but most are extremely disadvantaged. Often the place of residence is the sole factor determining whether pregnancy help is adequate, thus raising the question of whether women are discriminated against by their choice of geographical location.

Financial penalties are often imposed by DHEW on states which fail to notify welfare recipients and others of services funded wholly or in part by federal funds, if those services enjoy a high priority. Failure to notify welfare clients that family planning services are available brings a 1% fiscal penalty. Obviously, family planning can do much to prevent abortions by preventing pregnancies. However, if such services are voluntary, (and they must remain so) there will be women who will become pregnant by accident or by design and who will wish to carry their children to birth. There are no similar penalties imposed by DHEW on states who fail to fully inform pregnant women of the benefits to which they are entitled or if they fail to use all of the funds available to them to provide programs designed to meet the needs of these women. ACCL believes that notification of such services for pregnancy assistance should be made before the fact of pregnancy, just as notification for family planning is made without a requirement of evidence that sexual activity is taking place. Once caught in the panic of the crisis, it may be an overwhelming task for frightened women to attempt to find out what they may be entitled to in life supporting assistance.

Federal regulations covering distribution of services should be highlighted and the information should be made public and should be widely disseminated by the DHEW Secretary. Each state should follow suit.

SUMMARY

In this discussion we have raised a number of basic questions and have acknowledged that there are presently few readily available answers. Americans must search for those answers before we can decide whether we wish to financially support abortion, as at present, or whether a change of emphasis is indicated by factors previously overlooked.

ACCL believes that there is a heavy burden of proof upon abortion proponents to show clearly that legalization has benefitted poor and otherwise disadvantaged women. There is also need for them to show that the loss of rights of spouses, including putative fathers, and parents (rendered invalid by the United States Supreme Court) has not had a deleterious effect on the fabric of society and the structure of family life.

At the last Subcommittee hearing, Senator Bayh, you issued a directive that Dr. Philip Corfman of the National Institute of Health of DHEW assess the cost of developing more effective contraceptive methods for the purpose of reducing the number of abortions. We agree with this approach, as long as family planning continues to be on a voluntary nonpunitive basis, but it is clear that better methods of family planning are only part of the answer. There will continue to be women who conceive unintended pregnancies, no matter how perfect family planning methods become. What type of response will we offer as a nation when these pregnancies occur? Shall we as a people solve our desperate human problems with wholesale government funded abortion?

Or will we choose a more humane and positive policy and combine solid legal protection for each human life with a responsible exercise of reproductive powers and a vigorous and helping response to women who become unintentionally pregnant?

We realize that some people feel that abortion should be available as one of the options offered in multi-service facilities, and that some agencies that care about women and children are already providing the variety of services ACCL suggests. The fact is, Mr. Chairman, that in our country attention is presently focused on providing abortion, and not on supplying services needed to support a woman through a pregnancy. Our adoption agencies, child welfare agencies, the National Council on Illegitimacy, the Florence Crittendon Homes, and other specialized agencies are merged, dead, or dying for lack of funds and lack of attention.

There is little evidence of interest by the federal government in providing for supportive services, and even in the private sector such funding is light. For instance, we might examine why so few United Funds provide money for alternative services such as adoption.

ACCL has in press a listing of the current federal and foundation funded research projects which cover the topics of parenthood, abortion and abortion research, population control, and family planning. A few of these projects appear to be dealing in a positive way with the problems of unintended pregnancy and its effects on the family and on society. However, the vast majority suggest an anti-natal emphasis on the study of family structure and fertility control. It is clear that many of the resources of this country have turned to funding the cheap, quick, and violent way out of complex human dilemmas, and in doing so they have abandoned many women and children.

We must bring together our best medical people, clergy, attorneys, sociologists, and concerned nonprofessionals to work with Congress in framing a public policy that does not invite death and violence but which protects and enhances life. We believe that this dialogue on abortion alternatives must continue, and that the problems confronting the unwed or needy pregnant woman are complex enough to warrant a full investigation by the Senate Health Committee. Mr. Chairman, we urge you to encourage Senator Edward Kennedy to begin such an investigation as soon as possible.

ACCL pledges to work with all legislators in partnership to help establish a just society in which the legal system protects the rights of both women and children, and where healthy mothers, healthy babies, and stable family units are encouraged by the policies of the federal and state governments.

Footnotes

1 Moody and Carmen, Abortion Counseling and Social Change, p. 21
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2 Carole Klein, "The Single Parent Experience", p. 27
Walker & Company, New York 1973

3 "Family Life Education Augments Contraception for Adolescents,"
Joan E. Morgenthau, M.D., OB-GYN NEWS, Vol. 9, No. 14, July 15, 1974, p.29

4 "Annual Report for 1974", National Foundation-March of Dimes, p.9

5 United States Supreme Court in Burns v. Alcala, 1 FLR 3040, 3/25/75

6 Testimony of Joseph H. Reid, Executive Director, Child Welfare League
of America before the Senate Subcommittee on Children and Youth, pp.3-9

7 Ibid., p. 21

8 The United States District Court for the Eastern District of Pennsylvania,
Civil Action #74-2440, Planned Parenthood, et al, v. Wohlgemuth, p.94

9 Pittsburgh Post-Gazette, June 5, 1975

10 "Unprotected Intercourse Among Unwed Teenagers"; Vol. 7, No. 1,
Jan/Feb. 1975, Shah, Zelnik and Kantner, Family Planning Perspectives

11 Ibid, p. 43

12 Eunice Kennedy Shriver, "In Support of Life", ACCL Life Concerns
Educational Series, 1975, Minneapolis, MN.

13 The United States District Court for the Eastern District of
Pennsylvania, Civil Action #74-2440, Planned Parenthood, et al,
v. Wohlgemuth, p. 153

14 The United States District Court for the Eastern District of
Pennsylvania, Planned Parenthood, et al v. Emmet Fitzpatrick, et al.;
deposition of Dr. Christopher Tietze, January 31, 1975, p. 79

15 "Induced Abortion: A Factbook", Reports on Population/Family Planning
No. 14, Dec. 1973, Tietze and Dawson, p. 39; The Population Council,
New York

Mrs. SHRIVER. In conclusion, Senator Kennedy, Mrs. Callahan is here to give a very brief statement.

Mrs. CALLAHAN. I would like to concentrate on the purpose of improving the parenting capabilities of adolescent parents. Nothing could be more important because we know that parents partly determine the child's health, intelligence, and personality.

During this process the period from conception to school age may be the most critical period, and it is the time when our society most ignores both parents and children. Tragically, it appears that irreversible damage can be most readily suffered by children during their most helpless years, if they do not receive what they need in order to thrive.

What are parenting capabilities?

Capable parents protect and nurture their children; they are their children's buffer from the world. Basic nurturing consists of the provision of warmth, shelter, food, clothing, and medical care. As these physical needs of the child are met, other important psychological needs are also provided.

The most important psychological function of parents is a partnering relationship which is specific, loving, and responsive. A psychological sense of self is created through a parent-child dialog in which the child initiates and then receives a sensitive, frequent, and consistent response. Day by day, in countless interactions of word and deed a predictable world is created in which confidence, hope, and self-esteem flourish.

Capable parents encourage the cognitive growth of their children through the ongoing parent-child dialog. Play and games, questions and answers, the encouragements of protected explorations of the environment create cognitive structures which enhance intelligence and coping behavior. Language is perhaps man's greatest cognitive tool, and early language experience is crucial for school and other kinds of achievement.

Through ongoing conversations traditional culture is transmitted from parents to children. Capable parents informally educate their children at home as well as function as their advocates in the world beyond the family.

When children become older, parental power influences their treatment in other social institutions such as the schools. Obviously, a child's chance in life is inextricably bound up with the early parenting he or she receives. Equality of opportunity or any idea of liberty and justice for all is meaningless if there is a huge discrepancy in the earliest parenting that different individuals receive.

What can be done?

Young school-age mothers are among those who most need help to develop their parenting capabilities. And adequate parenting can be learned and developed through education. With human beings, learning is more important than any natural instinct or innate biological programing. It is also evident that what is not possessed cannot be given. Since a capable parent commands resources to her child, food, shelter, and clothing, then the young single mother must have these things in order to nurture her child.

But beyond these basic physical resources, there is the all-important question of psychological ego strength and self-esteem which is needed to raise children well. Protective maternal activity is effective when it is aggressive, strong, and confident in the face of the environment's dangers.

In this country ego strength and self-esteem come from education and the ability to earn a living. If young girls are to raise their children adequately they must be able to continue their education and be prepared for work. Without social power and competency they cannot protect a dependent child or have the psychological resources to foster the psychological development of their children.

If they are helpless to change their own lives they cannot be a model of competency and effectiveness for their children.

Moreover, without a sense of control or self-determination, adolescents will certainly not be able to exert the self-control and goal-oriented behavior necessary to prevent further pregnancies.

If you have no real future to look forward to, why exert self-control today?

Cycles of dependency and helplessness can be broken by outside intervention. Help from others outside the immediate family has always been a part of human social life, especially in the traditions of religious communities. Outside models from the community, support from the neighborhood, and the extended family have always helped in the parenting process.

When these extra-family sources of support have broken down, then they must be recreated and reinvented. A state of dependency and need is not the original sin, but an opportunity for the strong to give creative help and assistance.

When world leaders pride themselves on taking away milk and lunches from schoolchildren or vetoing day care, injustice reigns. It is also the case that women will never be equal in this society until the needs of pregnant women and children are recognized and supported.

All of the public money spent upon training an army, buying arms, and building highways will be to no avail if we fail to support the health and socialization of the next generation of children.

There is no greater moral and pragmatic investment to be made than in helping young mothers raise their children.

Thank you.

[The prepared statement of Mrs. Callahan follows:]

Statement by Sidney Callahan

The National School-Age Mother and Child Health Act should be supported for a multitude of moral, ethical and pragmatic reasons. I will concentrate here on the stated purpose "to improve the parenting capabilities of adolescent parents." It is an extremely important issue. Parents not only give a genetic endowment to their child but also partly determine its health, intelligence and personality. During this process the period from conception to school age may be the most critical period, but it is the time when our society most ignores both parents and children. Tragically, it appears that irreversible damage can be most readily suffered by children during their most helpless years, if they do not receive what they need in order to thrive.

What Are Parenting Capabilities?

Capable parents protect and nurture their children; they are their children's buffer from the world. Basic nurturing consists of the provision of warmth, shelter, food, clothing and medical care. As these physical needs of the child are met, other important psychological needs are also provided. The most important psychological function of parents is a partnering relationship which is specific, loving and responsive. A psychological sense of self is created through a parent-child dialogue in which the child initiates and then receives a sensitive, frequent and consistent response. Day by day, in countless interactions of word and deed a predictable world is created in which confidence, hope and self-esteem flourish.

Capable parents encourage the cognitive growth of their children through the on-going parent-child dialogue. Play and games, questions and answers, the encouragement of protected explorations of the environment create cognitive structures which enhance intelligence and coping behavior. Language is perhaps man's greatest cognitive tool, and early language experience is crucial for school and other kinds of achievement. Through on-going conversations traditional culture is transmitted from parents to children. Capable parents informally educate their children at home as well as function as their advocates in the world beyond the family. When children become older, parental power influences their treatment in other social institutions such as the schools. Obviously a child's chance in life is inextricably bound up with the early parenting he or she receives. Equality of opportunity or any idea of liberty and justice for all is meaningless if there is a huge discrepancy in the earliest parenting that different individuals receive.

What Can Be Done?

Young school-age mothers are among those who most need help to develop their parenting capabilities. And adequate parenting can be learned and developed through education. With human beings, learning is more important than any natural instinct or innate biological programming. It is also evident that what is not possessed cannot be given. Since a capable parent commands resources to her child food, shelter and clothing, then a young single mother must have these things in order to nurture her child. But beyond these basic physical resources, there is the all-important question of psychological ego strength and self-esteem which is needed to raise children well. Protective maternal activity is effective when it is aggressive, strong and confident in the face of the environment's dangers.

In this country ego strength and self-esteem come from education and the ability to earn a living. If young girls are to raise their children adequately they must be able to continue their education and be prepared for work. Without social power and competency they cannot protect a dependent child or have the psychological resources to foster the psychological development of their children. If they are helpless to change their own lives they cannot be a model of competency and effectiveness for their children. Moreover, without a sense of control or self-determination, adolescents will certainly not be able to exert the self-control and goal-oriented behavior necessary to prevent further pregnancies. If you have no real future to look forward to, why exert self-control today?

Cycles of dependency and helplessness can be broken by outside intervention. Help from others outside the immediate family has always been a part of human social life, especially in the traditions of religious communities. Outside models from the community, support from the neighborhood and the extended family have always helped in the parenting process. When these extra-family sources of support have broken down, then they must be re-created and re-invented. A state of dependency and need is not the original sin, but an opportunity for the strong to give creative help and assistance. When world leaders pride themselves on taking away milk and lunches from school children or vetoing daycare, injustice reigns. It is also the case that women will never be equal in this society until the needs of pregnant women and children are recognized and supported. All of the public money spent upon training an army, buying arms and building highways will be to no avail if we fail to support the health and socialization of the next generation of children. There is no greater moral and pragmatic investment to be made than in helping young mothers raise their children.

June 1975

Sidney Cornelia deShazo Callahan

Biographical Information

Born March 6, 1933, Washington, D.C. Educated in public and private schools in Washington, D.C. and Virginia. Married to Daniel Callahan, Director of the Institute of Society, Ethics and the Life Sciences. Six children: Mark, 20; Stephen, 18; John, 16; Peter, 12; Sarah, 11; David, 10.

Education

Holton-Arms School, 1951
B.A. Bryn Mawr College (magna cum laude), 1955 (English major)
M.A. Sarah Lawrence, 1971 (Psychology)
Doctoral Candidate C.U.N.Y. (Psychology)

Honors

Scholarship, Bryn Mawr College
D. Litt., Regis College, 1966
D. Litt, St. Mary's College, 1970
Catholic Press Association Award for Best Column, 1971
Medal from Rosary College Alumnae, 1970
Listed in *Foremost Women in Communication*, *Who's Who in the East*, *Who's Who Among American Women*

Professional Activities

Board of Trustees, National Legal Center for Bioethics, 1975 -
Board of Trustees, Mercy College, Dobbs Ferry, N.Y., 1970-74
Advisory Board, Kennedy Institute of Bioethics, Washington, D.C., 1971-
Lay Representative, Commission on Higher Education, Middle States Association of Colleges and Secondary Schools, 1972-73
Consultant on Educational Texts, United Church Women, 1970-71
Consultant, Holt, Reinhart and Winston Publishers, 1971-72
Consultant, Abortion Committee, National Council of Churches, 1972-73
Lecturer and Workshop Leader at various colleges, including the following: Harvard, Yale, Michigan State, Syracuse Medical School, Union Seminary, Stanford, 1965-
Participant in educational films, film strips, tapes, television and radio programs, 1965-
Weekly National Syndicated Columnist, 1969-1972
Staff Psychologist, Echo Hills Mental Health Services, 1973-75

Publications

Books
The Illusion of Eve: Modern Women's Search for Identity (New York: Sheed & Ward, 1965) -- also in French, German, Spanish, Italian, Portugese and Japanese editions.

Beyond Birth Control: Christian Experience of Sex (New York: Sheed & Ward, 1968) -- published as paperback, 1970, under title *Exiled to Eden: Christian Experience of Sex* (Sheed & Ward)

Christian Family Planning and Sex Education, (Notre Dame, Indiana: Ave Maria Press, 1969)

The Working Mother (New York: Macmillan, 1971) -- paperback edition, Warner Paperback Library, 1972

Parenting: Principles and Politics of Parenthood (New York: Doubleday, 1973) Penguin Paperback Edition, 1974

The Prayer of Mary (New York: Seabury Press, 1975)

Essays

Essays published in the following books:
Eyes on the Modern World (1965); *Sexuality in the Island Earth* (1970): *Women's Liberation and the Church* (1970); *The Church and Contemporary Issues* (1971); *Sexuality: A Search for Perspective* (1971); *Moral Issues and Christian Response* (1971); *Future of the Family* (1971); *Sex: Thoughts for Contemporary Christians* (1972); *Witness of the Berrigans* (1972); *The Future of Sexual Relations* (1974)

Articles and Book Reviews

New Republic, *Commonweal*, *The Christian Century*, *Notre Dame Journal of Education*, *Humanitas*, *Theological Studies*, *Soundings*, among others.

Senator KENNEDY. We want to thank you all.

I think we have received a great spectrum of very effective testimony that covers the whole thrust of the legislation, and from people who have been enormously concerned and interested in it.

You have been a very powerful panel that has spoken this morning

We want to thank you all very much.

We will have to recess for a few minutes for a vote.

RECESS

Senator KENNEDY. We will come to order.

Our next witness is the Senator from Indiana, Senator Bayh, who has been extremely interested in this subject, introduced S. 2360, which is one of the bills we are considering here this morning.

I note from my own personal conversations with Senator Bayh and the work he has done personally in this area, that he has been one of the real leaders in the Senate in focusing on this particular problem.

If we are able to get this legislation passed, and I am very hopeful we will, then to a great extent it will be with Senator Bayh's help and support.

If we are able to get it funded, it is going to be even more important because Senator Bayh is on the Appropriations Committee and one of the most effective members of it.

We look forward to working with you, Senator.

We are very glad to have you here and appreciate your patience during the course of the morning.

STATEMENT OF HON. BIRCH BAYH, A U.S. SENATOR FROM THE STATE OF INDIANA

Senator BAYH. Mr. Chairman, you are thoughtful and courteous and, as usual, very exaggerative with respect to the talents of your respective colleagues.

Mr. Chairman, I want to reemphasize what you said relative to the need to have a cooperative effort if we are going to be successful in this field. I frankly feel that the legislation could not be in better hands than it is in your cochairmanship. I will be more than happy to cooperate with you in the funding area.

I want to thank you for the opportunity to testify before you today in support of the pending life support centers legislation. I also want to commend your interest, Mr. Chairman, in the issue under consideration this morning—the growing phenomenon of teenage parenthood. This phenomenon is a disturbing one—costly both for the individuals involved and the society as a whole—and shows no signs of abating. Clearly it deserves more thorough and systematic attention than it has yet received.

I have outlined the immense scope of the problems of teenage pregnancies in my prepared statement.

Since this discussion is somewhat lengthy dealing with a very complicated subject, I would like to ask that the full statement be inserted in the record, and that I might be allowed just to give a brief summary on the high points for the sake of time.

Senator **Kennedy**. Fine. It will be so included.

Senator **Bayh**. Mr. Chairman, I am sure that the witnesses who have appeared here today in front of you have graphically outlined the problem of teenage pregnancy as it exists today.

The fact that 1 out of 7 girls between the ages of 12 and 17 will be giving birth to a child next year, combined with the realization that 40 percent of these births will be out of wedlock, only begins to illustrate the enormity of the current situation.

Although increasing numbers of mothers are choosing to keep their babies and undertake child rearing, a high proportion of these infants eventually end up in foster care, often after the children have suffered irreversible emotional and sometimes physical harm. The high rates of attempted suicide among young mothers are an even more chilling reminder of the gravity of their situation.

Mr. Chairman, it is imperative that we respond to these realities in an effective and timely manner.

The only alternative to this grim future now available to many of our teenage mothers is an abortion. I submit that this cannot be our national response to this growing problem. As chairman of the Subcommittee on Constitutional Amendments, I spent the better part of 2 years grappling with the extraordinarily complex tangle of moral, legal, medical, and social questions arising from the abortion dilemma.

My colleague from Massachusetts is familiar with the nuances involved in this very difficult, complex, and personal problem.

I came to my own personal feeling that abortion involves questions of "life."

However, Mr. Chairman, I am not a woman. I am not likely to be confronted with this situation myself, so it seems to me to be a very irresponsible position for me to take, to thrust my position and my personal feeling on others who will have to face this very personal decision.

Thus, it should be a personal decision, and we in Congress should not impose our personal views on others that may have different personal views and faced with different personal circumstances.

But during this period of the rather extended hearings that our committee held, I became all too aware of our regrettable failure to address the unmet needs of hundreds of thousands of women who must deal with unintended pregnancies, often in the least promising of circumstances, but who reject abortion because of their deepest convictions. This is especially true of the Nation's young.

As a society dedicated to freedom of conscience and individual choice for all of our citizens, regardless of their class, race, age, marital status, or place of residence, we owe these young people a real alternative to abortion—one which will allow every prospective mother to follow freely the dictates of her own conscience.

To date, this society, the richest and most medically advanced in the world, has committed only an infinitesimal fraction of its resources to providing satisfactory alternatives to abortion for our young people. We must make it a matter of national policy that every prospective mother, no matter what her life situation, has a truly free choice about her future. We must spare her and her child from the misfortunes now likely to plague them.

Despite the chilling futures awaiting our young mothers and their children, and the social burden stemming from the spurt of teenage mothers, a survey of Federal policies bearing on their problems shows them to be unfocused and ill suited to meet the problems they face.

Our major Federal medical assistance program has eligibility requirements that force many to abandon attempts at self-sufficiency and assume welfare status to obtain medical benefits.

Until recently we have had no national policy addressing the educational needs of pregnant teenagers. Title IX of the Educational Amendments of 1972, which I authored, now prohibits school systems from receiving Federal assistance if they force pregnant students to leave school. The legislation has yet had no impact because HEW waited 3 long years to issue regulations to implement the legislation.

The Federal Government has not assumed any responsibility of helping to find homes for the thousands of American children in need of them. In the last few years, many States have established programs to facilitate the adoption process. The demonstrated savings in both human suffering and dollars have been enormous. A Federal commitment in this area could help tremendously.

Despite congressional approval of comprehensive legislation for quality day care services, we still have no meaningful Federal assistance for child care in this country.

This is an area that the chairman of the subcommittee and the Senator from Indiana have been actively interested in, and unfortunately the Nixon veto will go down in history as one of his most damaging acts that really caused a major retreat in this area.

Existing Federal programs which have the potential for serving pregnant teenagers, or teenagers at risk of pregnancy, have been funded at ridiculously low levels. Fiscal 1976 administration budget requests have brought many programs to a virtual standstill and prevented antiquated startups of new projects all across the Nation.

Rarely do programs offering assistance to troubled teenagers coordinate available services or provide the opportunity for young people to work continuously with one counselor who can build trust and understanding over time.

Confused and often distraught teenagers cannot be expected to benefit as much as they might from such fragmented programs.

It is fashionable in some circles today to argue that we must cut back on past commitments the Federal Government has made to improve the health and well-being of our citizens. This is a shortsighted and narrow approach. It ignores the Nation's finest traditions. It mortgages our future.

And even from a fiscal perspective, it makes no sense. For every dollar we now refuse to invest in family planning services, in keeping young parents in schools, in vocational training, in providing health care to prospective mothers and their offspring, in assistance in funding jobs and in comprehensive quality child care, we will spend far greater amounts feeding the results of our neglect—on welfare programs, crime, and foster or institutional care for rejected offspring or disadvantaged children.

Mr. Chairman, the time for a focused program of action is now. The necessary components are clear—timely and comprehensive health care, family planning services, social services, and counseling tailored to adolescent needs brought together under one roof and easily accessible to the young.

Studies of such support centers have shown this type of intervention to be dramatically effective—leading to reductions in infant mortality and morbidity, school dropouts, repeat pregnancies, and welfare dependency.

By acting now, we cannot only provide true freedom of choice to those faced with unintended pregnancies and give a new lease on life to them and their children, but by helping them, we may also be able to bring under control a disturbing but growing phenomenon in our society—the phenomenon of continuous generations of single-parent families, dependent on the State for their livelihood.

S. 2360, the Life Support Centers Act of 1975, which I introduced on September 17, 1975, draws extensively on the experience of already established and successful centers. It is designed to serve as a Federal incentive for the maintenance and extension of such a program. It provides matching Federal funds for support centers which offer an array of social, medical, and counseling services to pregnant adolescents and to them and their children after birth.

I would like to underscore certain aspects of the legislation which I consider especially important.

First, the extension of benefits to prospective adolescent mothers is meant to be inclusive, encompassing all teens in their childbearing years who could benefit from the services offered. This approach is especially important in relation to the provision of family planning services, obviously the most effective means of preventing unintended pregnancies. Studies of contraceptive practices among teenagers by Planned Parenthood and Zero Population Growth indicate that the teenage group is especially hard to reach and particularly vulnerable to unplanned pregnancies.

Support centers cannot only reduce repeat pregnancies by making future family planning services available to teenage mothers, but through their outreach programs, can also be useful in preventing unplanned first pregnancies by counseling teenagers on the risk of pregnancy and offering them family planning assistance where appropriate and desired.

Second, the bill stresses coordination of services under one roof, so that teenagers can work with one counselor for as long as necessary, in a trusting relationship, and do not have to crisscross their city or county and fill out endless forms in order to qualify for what is rightfully theirs.

Obstacles such as these can prove too much for teenagers during, what is for them, a crisis-period.

Finally, the legislation requires that centers make full use of already existing Federal, State, and local health, education, and welfare programs to meet their expenses. This should assume that the new money made available by this bill will increase and multiply, as well as coordinate, the fragmented assistance which already exists, and not just replace funds already allocated with new Federal moneys.

Mr. Chairman, this legislation, in my opinion, incorporates the most promising approaches yet developed to deal with the dilemmas faced by an increasing number of our adolescents. It is an approach that has worked, when properly funded and administered, and merits expansion to reach out to the thousands of teenagers struggling with pregnancies each year in this country.

I am hopeful that we can move ahead on this legislation without delay.

As all of us with children know, bearing and raising a child is a challenge even for mature adults with considerable resources.

It can turn into a nightmare for teenagers. By extending our support to the Nation's young mothers and their offspring, we can truly provide them with a real alternative to abortion and give them the opportunity most of us have been fortunate enough to experience—the chance to bear and raise our children as strong, healthy, and independent individuals.

Senator KENNEDY. Thank you very much, Senator Bayh.

You have outlined in your testimony the need for this legislation, and I think as a result of the extensive hearings that you have had, that there is probably nobody who understands the nature and painful aspects of different choices that have to be made in our society by young people.

You have also given us a good description of what this legislation provides, in terms of coordinating under one roof the various resources that are in existence at the current time under existing Federal legislation. You stressed the special kind of impetus provided by your legislation, and also by my own, and then indicated in your testimony what the benefits of this will be from a human point of view and also from a cost point of view.

We appreciate very much your willingness to share this experience with us, and your own views, too. I am hopeful that we can work together in fashioning the legislation on the floor and also in the future as well.

I share your great sense of urgency about the importance of the legislation, and I think it is imperative that we get it passed.

We look forward to working with you. I thank your staff people for their help and assistance, and look forward to their continued cooperation and help in the future, as we have received in the past.

Senator BAYH. Thank you very much, Senator.

[The prepared statement of Senator Bayh follows:]

PREPARED STATEMENT OF SENATOR BIRCH BAYH, A U.S. SENATOR FROM THE STATE OF INDIANA

Mr. Chairman, I want to thank you for the opportunity to testify before your subcommittee today in support of my pending Life Support Centers legislation. I also want to commend your interest, Mr. Chairman, in the issue under consideration this morning—the growing phenomenon of teenage parenthood. This phenomenon is a disturbing one—costly both for the individuals involved and the society as a whole—and shows no signs of abating. Clearly it deserves more thorough and systematic attention than it has yet received.

I. THE PROBLEM

The number of teenagers in America is increasing both numerically and in proportion to the total population. This trend, along with changing attitudes, is resulting in growing numbers of sexually active adolescents and out-of-wedlock births. The realities of this situation can no longer be ignored. Specialists are predicting an epidemic of teenage pregnancies and single parent households in the near future. Most alarming of all is the increase in pregnancies in the under 15 age group. This group is the only one of childbearing years which is actually showing an increase in its rate of pregnancy as well as in absolute number of pregnancies. Just consider these figures, probably shocking to most Americans:

This year one out of ten girls 17 or under, or 220,000 adolescents, will give birth.

It is expected that 1 out of every 7 girls between the ages of 12 and 17 will give birth to a child next year. In some States, the proportion will be closer to 1 out of every 5 girls.

Approximately 40 percent of these girls will give birth out-of-wedlock, and this percentage, which has increased dramatically over the last decade, is expected to rise still further in the next decade.

Of the 60 percent of teenage mothers who currently marry by the time they give birth, two out of three will be divorced within 5 years.

Of those teenage mothers who currently choose to keep their child at birth, large numbers will relinquish their children for foster or institutional care during the preschool years, often after the children have suffered irreversible emotional, and sometimes physical, harm.

These teenage mothers, still children themselves, are more and more likely to be the mothers of our future citizens. They, their offspring, and our entire society will suffer if we continue to ignore their needs. Despite the best efforts of committed volunteers, private foundations, and health professionals, the costs associated with teenage childbearing are unacceptable and, I believe, unnecessary.

A. Health Risks

Complications associated with teenage pregnancy are far more frequent than those associated with pregnancy of mothers over 20. Medical evidence indicates that the younger the adolescent mother, the greater the danger. Along with the difficulties of the teenage mother, early childbearing threatens the life and well-being of the child. A child born to a teenage mother is much more likely to die in the first year of its life than a child born to an older woman, and is much more likely to be of low birth weight. Low birth weight babies have decidedly poorer life prospects due to stunted physical, emotional and intellectual development. Timely prenatal medical care and nutritional counseling can prevent these misfortunes.

B. Educational Harm

Expulsion due to pregnancy is the most important known cause of teenage girls leaving school. Because incomplete education is associated with unemployment and increased welfare dependency, the failure of school systems to come to terms with the educational needs of teenage mothers is a serious problem not only for the individuals involved, but for the whole society.

Most pregnant girls are physically able to remain in their regular classes during their pregnancy. Despite this, less than one-third of the 17,000 school districts in the United States make any provision for the education of pregnant girls. In the others, teenage parents are often prohibited from continuing their education or are removed from regular student rolls and placed on rolls of "special students." This reclassification limits the range of educational courses and services available to them.

Demonstration programs have shown that when opportunities to continue education are available on a classroom basis, prospective parents study harder, improve their grades and return to school after giving birth in surprisingly high numbers—85 to 95 percent. The punitive response of all too many of our schools has not been successful in preventing teenage pregnancies, if that is the goal. Rather, refusal to educate teenage mothers has only succeeded in compounding problems these youngsters are already experiencing.

C. Increased Unemployment

With an incomplete education and lack of skills or experience, the teenage mother is a high-risk candidate for unemployment. Almost 40 percent of mothers on welfare in New York City were pregnant with their first child at age 17 or under. In New Haven, Conn., 6 of every 10 pregnant women aged 17 or below are expected to join the welfare rolls within 5 years. With an incomplete education and no job skills or training, the teenage mother is not equipped to support herself or her child. Thus it is not surprising that she ends up relying on public support.

We already know that the young are more severely handicapped by economic recession than are other age groups. They frequently are the last hired, first fired, and last rehired. The employment handicap for a pregnant teenager, who has not completed her education and who has the extra responsibility for caring for a child, is even more pronounced.

Although the social stigma of unwed motherhood has somewhat diminished, it remains a very real factor in the life of the pregnant teenager. Frequently the unwed teenage mother is forced out of her normal school environment. Her social life is restricted, not only by removal from school, but also by the new responsibilities in her life. Often there is peer rejection at a time in life when the need for support from one's peers is at its most critical stage.

If a pregnant teenager marries the father of her child the marriage is likely to end in divorce. Nearly half of all teenage marriages break up within 5 years, and the rates are even higher for young people who marry primarily in response to a pregnancy. So even though there may be pressure for marriage, such marriages have a poor track record for providing a stable family structure for a child.

Although increasing numbers of mothers are choosing to keep their babies and undertake child rearing, a high proportion of these infants eventually end up in foster care, often as abused or neglected children. Delayed relinquishment of these children, or their abuse, are signs of the enormous strains faced by teenage mothers. The high rates of attempted suicide among young mothers are an even more chilling reminder of the gravity of their situation.

Mr. Chairman, it is imperative that we respond to these realities in an effective and timely manner.

The only alternative to this grim future now available to many of our teenage mothers is an abortion. I submit that this cannot be our national response to this growing problem. As Chairman of the Subcommittee on Constitutional Amendments, I spent the better part of two years grappling with the extraordinarily complex tangle of moral, legal, medical and social questions arising from the abortion dilemma. During this period, I became all too aware of our regrettable failure to address the unmet needs of hundreds of thousands of women who must deal with unintended pregnancies, often in the least promising of circumstances, but who reject abortion because of their deepest convictions. This is especially true of the nation's young.

As a society dedicated to freedom of conscience and individual choice for all of our citizens, regardless of their class, race, age, marital status, or place of residence, we owe these young people a real alternative to abortion—one which will allow every prospective mother to follow freely the dictates of her own conscience.

To date this society, the richest and most medically advanced in the world, has committed only an infinitesimal fraction of its resources to providing satisfactory alternatives to abortion for our young people. We must make it a matter of national policy that every prospective mother, no matter what her life situation, has a truly free choice about her future. We must spare her and her child from the misfortunes now likely to plague them.

II. PRESENT FEDERAL REMEDIES

Despite the chilling futures awaiting our young mothers and their children, and the social burdens stemming from the spurt of teenage mothers, a survey of Federal policies bearing on their problems shows them to be unfocused and ill-suited to meet the problems they face.

Our major Federal medical assistance program has eligibility requirements that force many to abandon attempts at self-sufficiency and assume welfare status to obtain medical benefits.

Until recently we have had no national policy addressing the educational needs of pregnant teenagers. Title IX of the Educational Amendments of 1972, which I authored, now prohibits school systems from receiving Federal assistance if they force pregnant students to leave school. The legislation has yet had no impact because HEW waited 3 long years to issue regulations to implement the legislation.

The Federal Government has not assumed any responsibility for helping to find homes for the thousands of American children in need of them. In the last few years many States have established programs to facilitate the adoption process. The demonstrated savings in both human suffering and dollars have been enormous. A federal commitment in this area could help tremendously.

Despite congressional approval of comprehensive legislation for quality day care services, we still have no meaningful Federal assistance for child care in this country.

Existing Federal programs which have the potential for serving pregnant teenagers, or teenagers at risk of pregnancy, have been funded at ridiculously low levels. Fiscal 1976 administration budget requests have brought many programs to a virtual standstill and prevented anticipated startups of new projects all across the Nation.

Rarely do programs offering assistance to troubled teenagers coordinate available services or provide the opportunity for young people to work continuously with one counselor who can build trust and understanding over time. Confused and often distraught teenagers cannot be expected to benefit as much as they might from such fragmented programs.

It is fashionable in some circles today to argue that we must cut back on past commitments the Federal Government has made to improve the health and well-being of our citizens. This is a short-sighted and narrow approach. It ignores the Nation's finest traditions. It mortgages our future. And even from a fiscal perspective, it makes no sense. For every dollar we now refuse to invest in family planning services, in keeping young parents in schools, in vocational training, in providing health care to prospective mothers and their offspring, in assistance in funding jobs and in comprehensive quality child care, we will spend far greater amounts feeding the results of our neglect—on welfare programs, crime, and foster or institutional care for rejected offspring or disadvantaged children.

Mr. Chairman, the time for a focused program of action is now. The necessary components are clear—timely and comprehensive health care, family planning services, social services and counseling tailored to adolescent needs brought together under one roof and easily accessible to the young. Studies of such support centers have shown this type of intervention to be dramatically effective—leading to reductions in infant mortality and morbidity, school dropouts, repeat pregnancies and welfare dependency.

By acting now we can not only provide true freedom of choice to those faced with unintended pregnancies and give a new lease on life to them and their children, but by helping them, we may also be able to bring under control a disturbing but growing phenomenon in our society—the phenomenon of continuous generations of single parent families, dependent on the state for their livelihood.

S. 2360, The Life Support Centers Act of 1975, which I introduced on September 17, 1975, draws extensively on the experience of already established and successful centers. It is designed to serve as a federal incentive for the maintenance and extension of such a program. It provides matching federal funds for support centers which offer an array of social, medical and counseling services to pregnant adolescents and to them and their children after birth.

I would like to underscore certain aspects of the legislation which I consider especially important.

First, the extension of benefits to *prospective* adolescent mothers is meant to be inclusive, encompassing all teens in their childbearing years who could benefit from the services offered. This approach is especially important in relation to the provision of family planning services, obviously the most effective means of preventing unintended pregnancies. Studies of contraceptive practices among teenagers by Planned Parenthood and Zero Population Growth indicate that the teenage group is especially hard to reach and particularly vulnerable to unplanned pregnancies. Support centers can not only reduce repeat pregnancies by making future family planning services available to teenage mothers but, through their outreach programs, can also be useful in *preventing* unplanned first pregnancies by counseling teenagers on the risk of pregnancy and offering them family planning assistance where appropriate and desired.

Second, the bill stresses coordination of services under one roof, so that teenagers can work with one counselor for as long as necessary, in a trusting relationship, and do not have to crisscross their city or county and fill out endless forms in order to qualify for what is rightfully theirs. Obstacles such as these can prove too much for teenagers during, what is for them, a crisis period.

Finally, the legislation requires that centers make full use of already existing federal, state and local health, education and welfare programs to meet their expenses. This should assume that the new money made available by this bill will increase and multiply, as well as coordinate, the fragmented assistance which already exists, and not just replace funds already allocated with new federal monies.

Mr. Chairman, this legislation, in my opinion, incorporates the most promising approaches yet developed to deal with the dilemmas faced by an increasing number of our adolescents. It is an approach that has worked, when properly funded and administered, and merits expansion to reach out to the thousands of teenagers struggling with pregnancies each year in this country.

I am hopeful that we can move ahead on this legislation without delay.

As all of us with children know, bearing and raising a child is a challenge even for mature adults with considerable resources. It can turn into a nightmare for teenagers. By extending our support to the Nation's young mothers and their offspring, we can truly provide them with a real alternative to abortion and give them the opportunity most of us have been fortunate enough to experience—the chance to bear and raise our children as strong, healthy, and independent individuals.

Senator Kennedy. We will recess for 5 minutes for a vote.

[Short recess.]

Senator Kennedy. We will come to order

I will now place a statement by Senator Hatfield in the record at this point.

STATEMENT OF HON. MARK O. HATFIELD, A U.S. SENATOR FROM THE STATE OF OREGON

Mr. Chairman, it is very encouraging to me that the Subcommittee on Health has scheduled this hearing on legislation which would help meet the needs of teenage mothers. I have asked to be a cosponsor of both S. 2538 and S. 2360 and want to give my enthusiastic support to these legislative efforts.

Senator Kennedy has presented the severe problems of the 600,000 or more teenage girls who give birth to children each year, particularly those for whom pregnancy is the first step on the dismal pathway of welfare dependency. Senator Bayh has noted that approximately 40 percent of the girls under age 17 who give birth are unmarried. As we examine these statistics our point is not to be moralistic and judgmental, but to remind ourselves of the extent of human needs among these young women and their children.

My initial thinking about the needs of adolescent mothers took place in the context of the unfortunate Supreme Court decision on abortion in January 1973. Like many others, I was very disturbed by the implications of the decision and felt that the courts had exceeded the reasonable interpretation of the concept of individual freedom. The many arguments related to this issue have been dealt with during the course of the hearings before the Senate Subcommittee on Constitutional Amendments. A House subcommittee intends to hold hearings on this subject as well. Throughout this debate I have felt there needs to be much more attention to providing alternatives to abortion.

There is nothing pleasant about an abortion which would make a woman want to experience it for its own sake. Rather, it has become an increasingly common method of terminating a pregnancy which for economic, physical or personal reasons was not desirable. In other words, some have seen it as the lesser of two evils. Even though an abortion is relatively safe when carried out under appropriate circumstances, it still is a very traumatic experience and would not be undertaken if other alternatives seemed more available.

The legislation before this subcommittee is a welcome start toward providing some of these alternatives, without creating a massive new bureaucracy or outlay of funds. Senator Kennedy's bill would establish State advisory councils for the coordination of comprehensive services for school-age women and their children. This proposal would maximize the involvement of nongovernmental organizations, rather than confining the efforts to the public sector. The emphasis would be on medical and nutritional services, but would also extend to counseling, community outreach, health education, and family planning assistance. The assistance would not be confined to the immediate period after the birth of the child, but would extend through infancy and into the period when day-care services might be needed to allow the mother to seek employment. The father of the child would be also eligible for counseling on a voluntary basis. Adoption and foster care services would be included in the scope of this bill, which is very appropriate. Far too often we omit these options for those facing a problem pregnancy.

Senator Bayh's bill would group some of these services within "life support centers," also aimed at the needs of pregnant adolescents. Nonprofit organizations would be eligible for Federal grants under this bill, as well as public agencies. The Life Support Centers would be focal points for the health, counseling, family planning, and adoption services needed by teenagers. Outreach and education programs might include seminars and "hotline" information and referral services.

Although the funding method anticipated by these bills is slightly different, their objective is identical and their options very similar. Therefore, I am optimistic that the subcommittee will be able to blend these proposals into a bill to report through the full committee and to the floor. The amount authorized by both bills is identical. As Senator Kennedy has pointed out, $30 million per year is a small price to pay for the prospect of delivering some young persons from the welfare cycle and many other problems.

It is my hope that the discussion of these bills will take place without regard to the alignments on the issue of amending the Constitution on abortion. I cannot imagine that pro-abortionists or anti-abortionists would disagree on the need for these programs and services. Support for alternatives to abortion does not imply a lack of concern about the Supreme Court's 1973 decision. My position on that has not changed, but I feel I can work on alternatives to abortion with colleagues in the Congress who do not support the Constitutional amendments on abortion. The latter issue remains to be resolved. Meanwhile, let us work together to begin meeting the needs of the thousands of young people whose lives have been filled with tragedy and disappointment because of unintended pregnancy. The miracle of childbirth is one of the most marvelous experiences in God's creative process. The assistance given through Life Support Centers can assure that the lives brought into being in this manner have every chance for a healthy and happy life.

Mr. Chairman, thank you for the opportunity to express my support for this legislation. It is my hope that the subcommittee will move promptly toward reporting the bill to the full committee.

STATEMENT OF JACK HOOD VAUGHN, PRESIDENT, PLANNED PARENTHOOD FEDERATION OF AMERICA, ACCOMPANIED BY JEANNIE ROSSOF, VICE PRESIDENT, ALAN GUTTMACHER INSTITUTE

Senator KENNEDY. Our final witness this morning is Jack Vaughn, president of Planned Parenthood Federation of America.

Mr. Vaughn's organization has a deep interest and expertise in the matter before us and we appreciate his appearance.

We have known Mr. Vaughn personally from his other service in public life, a distinguished public official for many years.

Mr. Vaughn, we are glad to have you here.

I apologize for the interruption.

I am afraid we are going to have more interruptions regularly. We will proceed as best we can.

Mr. VAUGHN. Thank you very much, Mr. Chairman.

Perhaps in the interest of time, I should summarize or abbreviate substantially what I have to say.

I would like to proceed on that basis.

Senator KENNEDY. Fine.

We will include your statement in the record in its entirety at the conclusion of your testimony and you may summarize as you wish.

Mr. VAUGHN. The only commercial I would like to insert here is that I represent the largest private family planning organization in the United States, perhaps in the world.

We operate about 740 clinics under 187 affiliates in some 44 States.

We also support programs in 29 foreign countries, operating through religious and feminist groups, principally.

To start, I would like to underline the fact that we believe there are four major concerns or issues within your deliberations.

The first, related to adolescent pregnancy, is sex education, which is so poorly done in our country, so unevenly done.

The second is the urgency of providing better contraceptive techniques and devices in a more sensitive and imaginative way than is currently done.

Thirdly, the problem of supporting those adolescents who decide to go to term.

And fourthly, the need for high quality, inexpensive, legal, early abortion services when the teenager decides that is the course to take.

These are all related, and there are enormous deficiencies and uneven service in all four.

I might give you an example of what I think is about par for the course with regard to sex education across the United States.

It is a large State which worked for many years to develop an improved sex education curriculum, kindergarten through 12, at great cost in time and money.

It was finally approved and resulted in about 4 minutes per week per grade being devoted to sex education.

And finally a compromise bill was passed to make it optional.

I think that is about what we face in the average State in sex education.

The research and development division of our federation and the National Institutes of Health co-sponsored a research conference last week on the consequences of adolescent pregnancy, so I've been freshly reminded that the problems we see in our clinics are only a limited reflection of a pervasive, difficult social phenomenon. So, I'd like to thank you for the opportunity to discuss a problem that has long been overlooked and misunderstood.

This subcommittee's recognition that adolescent pregnancy and childbearing demand concerted public attention is deeply encouraging to me. It's an important first step toward wider understanding of and a more mature public response to adolescent pregnancy.

Because the problems are grave—for the families directly involved and for all Americans concerned about the well-being of adolescents and their offspring—we owe ourselves and our children a workable, long-term program. To achieve that and to avoid raising expectations that can't be fulfilled, informed public discussion is essential, particularly during a period of fiscal constraint and widespread skepticism over the effectiveness of public programs. I'm deeply appreciative, therefore, of yours and Senator Bayh's leadership in drawing attention to this issue and I hope you will follow up these initial hearings with extended deliberations which can lay the groundwork for comprehensive legislation to deal with this urgent problem.

Without repeating evidence of the risks and strains related to adolescent parenthood, I'd like to associate myself with the comments of other authorities testifying today. I think, we agree that teenage pregnancy involves adverse health, social, and economic consequences and that our health, educational, and social service systems have failed to undertake a systematic effort to tackle this problem. To judge by the actions of professional organizations and many Government agencies, it seems unlikely that a concerted effort will emerge without national attention and action such as your subcommittee is exploring.

The question is not whether a problem exists. The risk, I think, is in underestimating the extent and dimensions of the problem. At least a million young women below age 20 become pregnant each year, and the vast majority of these pregnancies are accidental.

In addition to 617,000 pregnancies which resulted in live births, there were a substantial number of miscarriages and spontaneous fetal losses and 244,000 abortions performed on teenagers during 1973 and probably 300,00 in 1974. The ratio of abortions to live births was higher for teenagers than for any other age group except those older than 44.

For unplanned pregnancies which result in live births, the costs are heavy. Many premature and underweight births which are disproportionately associated with congential birth defects, mental retardation and a variety of other tragic outcomes were to school-age girls.

According to preliminary analysis of 1972 birth records, more than one third of teenage births are to unmarried women and almost one-third of the legitimate first births are conceived out of wedlock. While grandparents often make sacrifices to assist these young families, welfare dependence is common.

When welfare becomes the major source of support for succeeding generations, public assistance offers less and less hope for mitigating difficult life circumstances in any meaningful sense. In very real ways, the cycle of very early parenthood contributes to a host of complex problems ranging from child abuse and neglect to the intangible diminution of a school-age girl's expectations and hopes for life.

Quite simply, the extent and consequences of adolescent pregnancy are far greater than even the sobering statistics on births would suggest. In developing a workable program that neither ignores more challenges than it addresses nor promises more than it can deliver, we must approach the problem of unplanned adolescent pregnancy from two fundamental directions. We must upgrade and extend the range of compensatory assistance to youngsters who, voluntarily or not, become pregnant and decide or have to bear the infants. And we must expand substantially the availability of essential services to prevent adolescent pregnancy in the first place—the educational and family planning services which are so inadequately provided to American youngsters today.

We, Mr. Chairman, in planned parenthood federation across the land have just recently been encountering extraordinary difficulty and complex problems in continuing this service because of the regulations promulgated under title XX with income verification, that is, when a teenager comes to a planned parenthood clinic, and we have to find out how much that child makes or how much that child's parents make, when often the mother is not sure how much the father makes.

When this process must be repeated twice a year, it makes for a very difficult problem and is clearly a discrimination against the adolescent who does not want to be a problem or has a problem.

In regard to both compensatory and preventive programs, we must upgrade the sparse research base upon which we approach adolescent pregnancy. Currently we simply don't know the determinants or long range effects of adolescent pregnancy on the individual and society. We simply don't know the most effective ways to apply limited resources for dealing with the problem. As I mentioned earlier, our federation is cooperating with the National Institutes of Health to identify fruitful directions for future research in this area. Without substantial Federal support, however, promising investigations will falter and priorities for future research will be meaningless.

In regard to effective assistance for teenagers who become pregnant accidentally, a preliminary requirement of any publicly financed program is information, services, and counseling on all legal, medically accepted alternatives. Precisely, because a very young pregnant girl is unusually vulnerable to pressures and problems, it is necessary that policymakers take steps to avoid undermining her right to freely decide between terminating or maintaining a pregnancy.

It's evident that a program which would insist on a decision in favor of pregnancy as a prerequisite to assistance is as offensive to our Constitution as one which would insist on a decision to terminate the pregnancy. In this connection, it should be pointed out that, despite reservations about abortion under hypothetical circumstances, young women do not appear to be less willing than other population groups to utilize abortion services when they are confronted with the painful reality of an unwanted pregnancy.

Even though one-third of all abortions are performed on teenagers, it is evident that clinic and hospital abortion services are unavailable to many school-age girls.

Abortion facilities continue to be virtually nonexistent in many parts of the country and young women lacking in money, experience and information face especially severe obstacles in getting safe, legal help. A disproportionate number receive abortion care only in the second trimester when the procedure is medically and psychologically more difficult.

In very real ways, they paid substantially more than most women to obtain an abortion. Furthermore, a national survey by the research and development division of planned parenthood found that at least 186,000 teenage women were not able to secure abortions at all in 1973.

Whatever the ultimate choice, informed decisionmaking about pregnancy and abortion begins with reliable, convenient pregnancy tests for all teenagers requesting help. Those young women who feared accidental pregnancy but are not found to be pregnant obviously need contraceptive information and services immediately. Those who are pregnant need counseling on the alternatives and on supportive assistance available. If abortion is decided upon, assistance in overcoming the special obstacles confronting teenagers is called for.

For young persons who choose adoption or who plan to keep the infant, prenatal care can begin immediately. Beyond that, it is essential to address a range of maternal and infant needs. The legislation before you outlines the range of services that is essential. Without repeating each of them, it is important to note that the list reflects the scope of response that is required. Without comprehensive medical care, convenient day care services, realistic income maintenance programs, a variety of educational alternatives and social service assistance, we cannot hope to offset the difficulties of teenage parenthood.

Furthermore, these services must be available, when needed, on a long term basis. Research on adolescent parenthood has repeatedly demonstrated that short term assistance is of little real value. A year of special attention for a 15-year-old mother will seldom enable her to return and remain in school, to be economically self-sufficient or to be fully equal to the enormous personal demands of parenthood.

In spite of Federal prohibitions, many local school districts actively encourage school age mothers to leave school. Even when educators are nonjudgmental, there are virtually no infant day care services and school schedules are seldom flexible enough to adjust to makeshift arrangements for day care, medical appointments and frequent absences.

Despite the administration's general claims, there is no real evidence that present programs respond in any substantial way to the special problems of young parents. While there are 87 children and youth programs and 82 federally supported maternal and infant care projects scattered around the country, these projects are extremely limited in terms of both clients and impact. There are no national programs of health education or referral for adolescents. Public and private programs of counseling are already inadequate for the demands made on them.

Screening and evaluation services for children have failed to keep up with timetables mandated by Congress. Federally supported health care programs routinely overlook the difficult, special problems of school age girls and their infants.

Because present programs are limited and frequently unresponsive, it would be cruelly misleading to suggest that the existing fragmentary services are adequate or even that they can be patched into a comprehensive program merely through coordination. A meaningful program must have realistic independent funding.

Without attempting to quantify the cost of providing necessary health and social assistance, it seems apparent that $30 million suggested in the legislation before you is inadequate. Such a sum would amount to about $50 for each adolescent who becomes pregnant each year.

We in Planned Parenthood have a budget of about $65 million each year through which we treat about 1 million patients, which results, including all costs, research and overhead, is about $65 per patient served.

The kind of service is far less than——

Senator KENNEDY. How much of that is raised, out of the $65 million a year?

Mr. VAUGHN. Approximately half is from Federal sources. The rest is private contributions and fees for service. It is not realistic, actually, nor is it accurate to say that it costs us $65 per patient served, but in a sense it is because that represents all of our costs.

This is for counseling and contraceptive advice and care and so forth.

If you are talking about a support program for prenatal delivery, postnatal day care centers, and so forth, it seems to us that $50 is hardly a token amount. Even if you assume that only one in three teenagers would need help, this would still only amount to $150 per pregnant adolescent. I am sure you agree that $150 is not likely to be much help in solving the very real and complex problems fa[illegible] young pregnant girls.

For openers, Mr. Chairman, I would suggest that $300 million would be a more realistic figure.

In addition to adequate funding, a workable program must be accountable to congressional goals and priorities. A system of State plans and advisory boards falls short of this criteria by creating series of new administrative agencies with disparate standards of eligibility and unequal programs of service. A project grant program with clear responsibilities and a direct relationship with existing programs in fertility regulation, maternity and infant care, income maintenance, and education seems to be a more realistic approach to the problem.

Above all, a workable program must offer education and preventive assistance to all adolescents. To understand the fundamental significance of preventive efforts, I'd like to draw your attention to the fact that births to school age girls are increasing gradually but steadily. The National Center on Health Statistics reports that both the number and rate of births to 14-, 15-, and 16-year-old girls rose steadily between 1965 and 1973. The pattern for 17 year olds was relatively stable while births to 18- and 19-year-old women declined along with births to other older women.

Unless we recognize these trends and provide young adolescents with the opportunity to freely decide when they wish to become pregnant and have children, it seems likely that the needs of school age girls and their infants will swamp even generously financed and well-administered programs.

It is important, first, to recognize young persons' needs for forthright, factual information provided through the schools and other appropriate media. Our society's failure to develop adequate educational programs becomes truly scandalous when we recognize national data which found that less than 40 percent of single teenage girls know when in their monthly cycle they are likely to become pregnant.

Another national survey found that 30 percent of young women aged 13 to 19 said they knew of no place a young person could go to get contraceptives. Without the knowledge that would make responsible decisionmaking possible, young persons take risks and subsequently face the painful decisions involved in an unexpected pregnancy. Responsible programs of sex education can go a long way to dispel misunderstanding and uninformed chance-taking.

To enable a local school district to undertake meaningful sex education efforts, funds should be available to train teachers and curriculum specialists and to develop a variety of model programs with clearly defined goals and mechanisms for evaluation. A Federal initiative could also assist community agencies and institutions of higher learning to prepare parents, clergymen, physicians, social workers, and other professionals to provde information and assistance to young persons.

The second major preventive emphasis must be on delivery of voluntary contraceptive services to those who want them. The problem of offering adequate service is complex because, among adolescents, normal anxiety over unfamiliar medical procedures is complicated by fear of harassment, self-consciousness and, in many cases, by myths about birth control and its effectiveness.

Even if a teenager is resourceful, persistent, and knowledgeable enough to find a sympathetic private doctor, the expense is likely to be beyond her means.

Publicly supported family planning programs have demonstrated that family planning services to teenagers are successful when outreach efforts are appropriate and care is offered in a sensitive, nonjudgmental manner. Organized family planning projects are currently serving almost 1 million teenagers out of 3 to 4 million who are estimated to be sexually active and at risk of unwanted pregnancy.

Organized clinics could serve many more, but only if more funds were made available to support expanded programs. Public family planning clinics are currently operating beyond their intended capacity with funding that has not increased since 1972. Short of turning away present patients or abandoning their commitment to high quality medical care, these clinics simply cannot help additional unserved teenagers.

In summary, we should remember that it is no longer a question of whether educational programs, contraceptive services, maternal and infant health care, day care programs, and educational support for school age parents are needed. Adolescent pregnancy is the most common and, in many ways, the most serious socioeconomic problem among American youth.

One in 10 teenagers is directly affected each year. Talk of an epidemic is not exaggerated and claims that the health of future generations will be affected by decisions made about this problem are not exaggerated.

The challenge is to develop and implement a program equal to the complex problem we face. We in Planned Parenthood are committed to the support of such a program and welcome your initiative in getting the discussion started. We stand ready to work with you and your colleagues in developing a comprehensive, effective, and responsible program to help our youngsters and deal with this mounting problem which faces all of us.

Thank you.

Senator KENNEDY. Thank you very much.

We appreciate your testimony, particularly in the areas of need.

I think we have talked a great deal about being out in the firing line and obviously the Planned Parenthood Federation has been in these particular areas.

I think the kind of evidence that you bring to bear about the need for this program is very very useful and helpful, and basically what we have felt to be the case over the recent period of time.

With regard to the figures, I have not been accused of being a small spender recently in the Congress, and I can empathize with the figures you have used and they reflect more accurately the real cost of the programs that have already been developed, such as the Johns Hopkins program, which comes to about $500 per individual.

I think the suggestions you have made, in terms of the need, are the kinds of funds we ought to be considering. There are, unfortunately, some realities which will have to be faced in attempting to move this whole approach forward.

I think you understand those realities.

We have got these figures. They are inadequate, but we will try to adjust them as we get this program enacted. I think it is important.

A number of the points which you mentioned are related to things beyond the particular legislation in the bills we are considering today, but obviously are related to the subject matter we are considering.

I value your observations about those particular matters. I think it is helpful to have those documented here.

Mr. VAUGHN. Thank you, sir.

Senator KENNEDY. We have some difference in terms of whether it should be project grants or formula grants. I think we will have to examine that in greater detail to find the most effective ways of doing it, but those should not be in terms of the kinds of administrative problems you have identified here.

We are looking for the most effective way to get the programs into being.

I might ask if there is anything further you would like to say about the results of your conference on research?

Mr. VAUGHN. I had asked Dr. Jeannie Rossof, who is at my left, and who is vice president of the Alan Guttmacher Institute, our research and development arm, if there was something she could summarize or synthesize from this meeting, and she said she thought probably the first thing was that in dealing with 18- and 19-year-old teenage pregnancies, that the problem essentially was economic.

But as you went lower, 17 and down, it became increasingly a more complex problem that was more psychological. It was much more complicated and difficult to deal with than cases of the more sophisticated young ladies of 18 and 19.

The lower in age you went, the more complicated and severe and acute the problems were in the medical, social, and psychological areas.

I think it is important that the problem be looked at in an organized way.

The second finding was that we just know so damn little about this issue, and all its ramifications.

We do not have much hard scientific or sociological data. We need to know a lot more.

In saying that, I would like to assure you that if our research and development arm, the Alan Guttmacher Institute, can help you in any way in the developing of statistics or in looking at certain statistics in a nonjudgmental way, just providing data, we would be delighted to do that.

Senator KENNEDY. We will stay in touch with you on this.

During the course of the hearings, the administration's line is that what they are doing now is working and functioning. That may be somewhat overstated.

It takes 22 pages of their testimony, mentioning various programs, and so they must be attempting to make that point.

You have presented some information about the inadequacies of the present programs. I think that if there is anything else on it that you can provide for us, it would be useful.

We have heard from the people who have attempted to deal with this problem based on the young person's point of view, as well as others, that the present HEW programs are just not working and functioning. I am thinking of the fiscal cutbacks that we will have.

Well, we thank you for your comments.

We will keep you abreast of our legislative process.

We welcome the input you have provided for us and hope we can take some steps that will alleviate in part the anguish and concern that you have expressed.

We want to thank you very much.

Mr. VAUGHN. I do not want to take leave without telling you, sir, how much we in the population field appreciate your leadership.

[The prepared and supplemental statements Mr. Vaughn follow:]

TESTIMONY

of

JACK HOOD VAUGHN

PRESIDENT, PLANNED PARENTHOOD FEDERATION OF AMERICA

on

S. 2358

"THE NATIONAL SCHOOL-AGE MOTHER AND CHILD
HEALTH ACT OF 1975"

before the

SUBCOMMITTEE ON HEALTH

SENATE COMMITTEE ON LABOR AND PUBLIC WELFARE

November 4, 1975

I am Jack Hood Vaughn, President of the Planned Parenthood Federation of America, the oldest and largest voluntary family planning organization in the nation. Our primary objective is to enable all persons to voluntarily regulate their childbearing. Last year 187 Planned Parenthood affiliates provided family planning information and services to more than 900,000 persons in 44 states and the District of Columbia. Currently about one-third of our patients are under the age of 20.

Our clinicians and volunteers are acutely aware that young persons are often denied the opportunity to choose whether and when to become parents, and if they choose to do so, to have their babies under conditions which will promote the health and well-being of both the young parents and their offspring. The research and development division of our federation and the National Institutes of Health co-sponsored a research conference last week on the consequences of adolescent pregnancy, so I've been freshly reminded that the problems we see in our clinics are only a limited reflection of a pervasive, difficult social phenomenon. So I'd like to thank you for the opportunity to discuss a problem that has long been overlooked and misunderstood.

This subcommittee's recognition that adolescent pregnancy and childbearing demand concerted public attention is deeply encouraging to me. It's an important first step toward wider understanding of and a more mature public response to adolescent pregnancy. Because the problems are grave--for the families directly involved and for all Americans concerned about the well-being of adolescents and their offspring--we owe ourselves and our children a workable, long-term program. To achieve that and to avoid raising expectations that can't be fulfilled, informed public discussion is essential, particularly during a period of fiscal constraint and widespread skepticism over the effectiveness of public programs. I'm deeply appreciative, therefore, of your and Senator Bayh's leadership in drawing attention to this issue and I hope you will follow up these initial hearings with extended deliberations which can lay the groundwork for comprehensive legislation to deal with this urgent problem.

Without repeating evidence of the risks and strains related to adolescent parenthood, I'd like to associate myself with the comments of other authorities testifying today. I think we agree that teenage pregnancy involves adverse health, social and economic consequences and that our health, educational and social service systems have failed to undertake a systematic effort to tackle this problem. To judge by the actions of professional organizations and many government agencies, it seems unlikely that a concerted effort will emerge without national attention and action such as your subcommittee is exploring.

The question is not whether a problem exists. The risk, I think, is in underestimating the extent and dimensions of the problem. At least a million young women below age 20 become pregnant each year, and the vast majority of those pregnancies are accidental.

In addition to 617,000 pregnancies which resulted in live births, there were a substantial number of miscarriages and spontaneous fetal losses and 244,000 abortions performed on teenagers during 1973 and probably 300,000 in 1974. The ratio of abortions to live births was higher for teenagers than for any other age group except those older than 44.

For unplanned pregnancies which result in live births, the costs are heavy. Many premature and underweight births which are disproportionately associated with congenital birth defects, mental retardation and a variety of other tragic outcomes were to school-age girls. According to preliminary analysis of 1972 birth records, more than one-third of teenage births are to unmarried women and almost one-third of the legitimate first births are conceived out of wedlock. While grandparents often make sacrifices to assist these young families, welfare dependence is common. When welfare becomes the major source of support for succeeding generations, public assistance offers less and less hope for mitigating difficult life circumstances in any meaningful sense. In very real ways, the cycle of very early parenthood contributes to a host of complex problems ranging from child abuse and neglect to the intangible dimunition of a school-age girl's expectations and hopes for life.

Quite simply, the extent and consequences of adolescent pregnancy are far greater than even the sobering statistics on births would suggest. In developing a workable program that neither ignores more challenges than it addresses nor promises more than it can deliver, we must approach the problem of unplanned adolescent pregnancy from two fundamental directions. We must upgrade and extend the range of compensatory assistance to youngsters who, voluntarily or not, become pregnant and decide or have to bear the infants. And we must expand substantially the availability of essential services to prevent adolescent pregnancy in the first place--the educational and family planning services which are so inadequately provided to American youngsters today.

In regard to both compensatory and preventive programs, we must upgrade the sparse research base upon which we approach adolescent pregnancy. Currently we simply don't know the determinants or long-range effects of adolescent pregnancy on the individual and society. We simply don't know the most effective ways to apply limited resources for dealing with the problem. As I mentioned earlier, our federation is cooperating with the National Institutes of Health to identify fruitful directions for future research in this area. Without substantial federal support, however, promising investigations will falter and priorities for future research will be meaningless.

In regard to effective assistance for teenagers who become pregnant accidentally, a preliminary requirement of any publicly financed program is information, services and counseling on all legal, medically accepted alternatives. Precisely because a very young pregnant girl is unusually vulnerable to pressures and problems, it's necessary that policy makers take steps to avoid undermining her right to freely decide between terminating or maintaining a pregnancy. It's evident that a program which would insist on a decision in favor of pregnancy as a prerequisite to assistance is as offensive to our Constitution as one which would insist on a decision to terminate the pregnancy. In this connection, it should be pointed out that, despite reservations about abortion under hypothetical circumstances, young women do not appear to be less willing than other population groups to utilize abortion services when they are confronted with the painful reality of an unwanted pregnancy. Even though one-third of all abortions are performed on teenagers, it is evident that clinic and hospital abortion services are unavailable to many school-age girls. Abortion facilities continue to be virtually nonexistent in many parts of the country and young women lacking in money, experience and information face especially severe obstacles in getting safe, legal help. A disproportionate number receive abortion care only in the second trimester when the procedure is medically and psychologically more difficult. In very real ways, they paid substantially more than most women to obtain an abortion. Furthermore, a national survey by the research and development division of Planned Parenthood found that at least 186,000 teenage women were not able to secure abortions at all in 1973.

Whatever the ultimate choice, informed decision-making about pregnancy and abortion begins with reliable, convenient pregnancy tests for all teenagers requesting help. These young women who feared accidental pregnancy but are not found to be pregnant obviously need contraceptive information and services immediately. Those who are pregnant need counseling on the alternatives and on supportive assistance available. If abortion is decided upon, assistance in overcoming the special obstacles confronting teenagers is called for.

For young persons who choose adoption or who plan to keep the infant, prenatal care can begin immediately. Beyond that, it is essential to address a range of maternal and infant needs. The legislation before you outlines the range of services that is essential. Without repeating each of them, it's important to note that the list reflects the scope of response that is required. Without comprehensive medical care, convenient day care services, realistic income maintenance programs, a variety of educational alternatives and social service assistance, we cannot hope to offset the difficulties of teenage parenthood.

Furthermore, these services must be available, when needed, on a long-term basis. Research on adolescent parenthood has repeatedly demonstrated that short-term assistance is of little real value. A year of special attention for a 15-year-old mother will seldom enable her to return and remain in school, to be economically self-sufficient or to be fully equal to the enormous personal demands of parenthood. In spite of federal prohibitions, many local school districts actively encourage school-age mothers to leave school. Even when educators are nonjudgmental, there are virtually no infant day care services and school schedules are seldom flexible enough to adjust to makeshift arrangements for day care, medical appointments and frequent absences.

Despite the Administration's general claims, there is no real evidence that present programs respond in any substantial way to the special problems of young parents. While there are 87 children and youth programs and 82 federally-supported maternal and infant care projects scattered around the country, these projects are extremely limited in terms of both clients and impact. There are no national programs of health education or referral for adolescents. Public and private programs of counseling are already inadequate for the demands made on them. Screening and evaluation services for children have failed to keep up with timetables mandated by Congress. Federally-supported health care programs routinely overlook the difficult, special problems of school-age girls and their infants.

Because present programs are limited and frequently unresponsive, it would be cruelly misleading to suggest that the existing fragmentary services are adequate or even that they can be patched into a comprehensive program merely through coordination. A meaningful program must have realistic independent funding. Without attempting to quantify the cost of providing necessary health and social assistance, it seems apparent that $30 million suggested in the legislation before you is inadequate. Such a sum would amount to about $50 for each adolescent who becomes pregnant each year. Even if we could make the assumption that only one-third of them would need help, it would still amount to less than $150 per pregnant adolescent. I am sure that you will agree that $150 is not likely to be much help in solving the very real and complex problems facing young pregnant girls.

In addition to adequate funding, a workable program must be accountable to congressional goals and priorities. A system of state plans and advisory boards falls short of this criteria by creating a series of new administrative agencies with disparate standards of eligibility and unequal programs of service. A project grant program with clear responsibilities and a direct relationship with existing programs in fertility regulation, maternity and infant care, income maintenance and education seems to be a more realistic approach to the problem.

Above all, a workable program must offer education and preventive assistance to all adolescents. To understand the fundamental significance of preventive efforts, I'd like to draw your attention to the fact that births to school-age girls are increasing gradually but steadily. The National Center for Health Statistics reports that both the number and rate of births to 14-, 15- and 16-year-old girls rose steadily between 1965 and 1973. The pattern for 17-year-olds was relatively stable while births to 18- and 19-year-old women declined along with births to other older women.

Unless we recognize these trends and provide young adolescents with the opportunity to freely decide when they wish to become pregnant and have children, it seems likely that the needs of school-age girls and their infants will swamp even generously financed and well-administered programs.

It is important, first, to recognize young persons' need for forthright, factual information provided through the schools and other appropriate media. Our society's failure to develop adequate educational programs becomes truly scandalous when we recognize national data which found that less than 40 percent of single teenage girls know when in their monthly cycle they are likely to become pregnant. Another national survey found that 30 percent of young women aged 13 to 19 said they knew of no place a young person could go to get contraceptives. Without the knowledge that would make responsible decision-making possible, young persons take risks and subsequently face the painful decisions involved in an unexpected pregnancy. Responsible programs of sex education can go a long way to dispel misunderstanding and uninformed chance-taking. To enable local school district to undertake meaningful sex education efforts, funds should be available to train teachers and curriculum specialists and to develop a variety of model programs with clearly defined goals and mechanisms for evaluation. A federal initiative could also assist community agencies and institutions of higher learning to prepare parents, clergymen, physicians, social workers and other professionals to provide information and assistance to young persons.

The second major preventive emphasis must be on delivery of voluntary contraceptive services to those who want them. The problem of offering adequate service is complex because, among adolescents, normal anxiety over unfamiliar medical procedures is complicated by fear of harassment, self-consciousness and, in many cases, by myths about birth control and its effectiveness. Even if a teenager is resourceful, persistent and knowledgeable enough to find a sympathetic private doctor, the expense is likely to be beyond her means. Publicly supported family planning programs have demonstrated that family planning services to teenagers are successful when outreach efforts are appropriate and care is offered in a sensitive, nonjudgmental manner. Organized family planning projects are currently serving almost a million teenagers out of three to four million who are estimated to be sexually active and at risk of unwanted pregnancy. Organized clinics could serve many more, but only if more funds were made available to support expanded programs. Public family planning clinics are currently operating beyond their intended capacity with funding that has not increased since 1972. Short of turning away present patients or abandoning their commitment to high quality medical care, these clinics simply cannot help additional unserved teenagers.

In summary, we should remember that it is no longer a question of whether educational programs, contraceptive services, maternity and infant health care, day care programs and educational support for school-age parents are needed. Adolescent pregnancy is the most common and, in many ways, the most serious socio-economic problem among American youth. One in ten teenagers is directly affected each year. Talk of an epidemic is not exaggerated and claims that the health of future generations will be affected by decisions made about this problem are not exaggerated. The challenge is to develop and implement a program equal to the complex problem we face. We in Planned Parenthood are committed to the support of such a program and welcome your initiative in getting the discussion started. We stand ready to work with you and your colleagues in developing a comprehensive, effective and responsible program to help our youngsters and deal with this mounting problem which faces all of us.

Planned Parenthood - World Population 810 SEVENTH AVENUE, NEW YORK, NEW YORK 10019 / (212) 541-7800
HEADQUARTERS OF **Planned Parenthood Federation of America, Inc.**

December 9, 1975

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PRESIDENT
Jack Hood Vaughn

Senator Edward M. Kennedy, Chairman
Subcommittee on Health
Committee on Labor and Public Welfare
Room 431, Rayburn Senate Office Building
Washington, D.C. 20510

Dear Senator Kennedy:

In response to your request of November 4, when our organization testified on S.2538, we are pleased to provide supplemental testimony documenting deficiencies in existing service systems for school-age girls and the infants of those who become pregnant and carry their pregnancies to term. The primary focus of the Planned Parenthood Federation, of course, is on services to prevent involuntary pregnancy and childbearing. We have, however, maintained an active interest in the complementary services to pregnant youngsters and our affiliates work closely with agencies serving pregnant girls. But we do not consider ourselves expert on these programs and the data included in this letter should not be considered definitive. Rather, the information is intended to identify obstacles and inadequacies which cannot be overlooked without defeating the purposes of S.2538 and doing a disservice to young women vulnerable not only on account of their youthfulness and their pregnant condition but also because they are disproportionately likely to be poor or from a minority background.

Despite the Administration's complacency, it is evident that deficiencies in our nation's response to the problems of school-age sexuality and pregnancy cannot be erased or even ameliorated easily or cheaply. When public and private programs are reviewed, it is apparent that:

1) Eligibility for assistance to girls who become pregnant is restricted;

2) Programs are not equipped to respond effectively to the diverse needs of young people;

3) Hostile attitudes to adolescent sexuality and pregnancy are not countered by any organized programs/

PLANNED PARENTHOOD-WORLD POPULATION IS A MEMBER OF THE INTERNATIONAL PLANNED PARENTHOOD FEDERATION

4) The scarcity of basic services results in exclusion of many needing help;

5) Local "school-age parent projects," where they exist, have to restrict participation and limit their services due to funding and other limitations;

6) Educational and health programs to prevent early, unwanted parenthood are insufficient or, in many areas, nonexistent.

Before examining each of these problems individually, it is important to point out that all the difficulties are exacerbated by the Administration's expressed policy of limiting federal involvement in social and health programs, of cutting financial support for human services, of phasing out categorical grant projects and shifting responsibilities to financially hard-pressed, state administered programs.

Eligibility for Assistance is Restricted

In 1974, only 18 states elected to make low-income women eligible for public assistance on the basis of pregnancy.[1] In many states, therefore, a pregnant woman cannot obtain a Medicaid card to secure necessary prenatal care and cannot receive cash assistance to maintain minimal nutritional standards during pregnancy. Even after delivery, eligibility is, at best, restricted. A preliminary requirement is the mother's willingness to provide information on the identity and location of the infant's father.[2] In addition, the applicant must meet financial eligibility standards which, in many states, are well below the federal poverty level. The financial position of a young woman's parents may preclude eligibility since AFDC and Medicaid assistance is contingent on "other income" and "resources." If she is married, the husband's presence usually disqualifies the family from help.[3] Individual states may require minor recipients to live in the parental home or adopt other restrictions. Rhode Island, for example, denied AFDC benefits to any applicant under 18 years old until the policy was overturned this year by a federal district court.[4]

Other assistance programs exclude school-age girls and their infants in similar ways. Unless a student belongs to a family already eligible for food stamps, she may not receive them so long as she is claimed by her parents as a dependent for tax purposes. The Title XX Social Services Program requires unmarried minors to supply documentation of their parents' income and assets periodically in order to get help of any kind (including family planning). School-age parents can qualify for federally-supported educational assistance only if they meet their local school district's definition of "educationally deprived" or if they participate in a work study, adult education or other special programs. Job training projects often exclude pregnant women or refuse admittance to young mothers.

For most pregnant school-age girls and their infants, public assistance lies beyond a series of Catch-22-like provisions

> and complex eligibility restrictions. Often the grounds for disqualification are the very characteristics which make help necessary. The young mother's age, for example, her reluctance to involve the baby's father, her reliance on help from her own parents, her status as a student, her marriage or even pregnancy itself may be used to exclude pregnant school-age girls and their offspring. Whatever their original purpose, the restrictions now operate under color of law, regulation and formal policy. Any program intended to coordinate assistance or plan for statewide needs must start with comprehensive efforts to restructure eligibility standards. Without such reforms, other improvements will never reach most of those needing help.

Programs Are Not Equipped to Respond Effectively

On occasion, Medicaid, food stamps, rent supplements, legal aid, juvenile justice funds, child abuse and foster care services, transportation subsidy, Head Start, medical screening and treatment, vocational training, special education, revenue sharing funds, AFDC and a variety of other public assistance programs may be available to pregnant school-age girls and their infants. Services to teenage mothers are incidental to the purposes mandated for these programs, however. Even the nation's two small programs targeted toward pregnant women, new mothers and their offspring (the Maternity and Infant Care clinic program and the Women, Infants and Children feeding program) have no special responsibility for helping very young mothers.

All these programs are designed to serve eligible, low-income families; none has sufficient funds to seek out adolescent mothers or to focus on their special problems in any substantial way. Most programs cannot even identify the number or proportion of teenaged or very young mothers within their overall caseload, much less the total number of pregnant adolescents who are in need of these services. It is thus impossible to know whether projects serve five percent of low-income adolescents who need the services or 50 percent. The Title XX Social Services Program, which theoretically provides a way to finance special services for school-age mothers, actually offers no prospect for substantial help. A review of final Title XX service plans adopted this fall in 47 states reveals only 18 programs which even identify services for school-age mothers, unmarried parents or similar categories. Total projected expenditures (including federal and other money) is $8.2 million--less than one tenth of one percent of the federal share of the Title XX budget.[5]

> A majority of pregnant school-age girls cannot expect special help or priority attention from existing programs. Practical obstacles--such as remote clinics, welfare appointments during school hours and complex voucher prerequisites--fall heavily on school-age parents. In public agencies, however, the line forms, quite literally, at the rear. Program policies seldom make allowance for a 15-year-old's self-consciousness, anxiety,

inexperience or unique needs. Without new funding, special outreach efforts, personalized intake procedures, careful follow-up and other initiatives in behalf of school-age girls and their infants will be out of the question.

Hostile Attitudes Require Firm Countervailing Action

In schools, clinics and welfare offices, moralistic judgments about sexuality and unwed motherhood are often compounded by racial or economic prejudices since minority and low-income teenagers are disproportionately likely to be sexually active and to experience pregnancies. Pregnancy continues to be the leading cause of school exclusion among school girls of childbearing age in spite of federal regulations and numerous judicial decisions clearly upholding the school-age mother's right to an education.[6] The Children's Defense Fund reported last year that teachers and counselors in school districts throughout the nation actively encourage pregnant students and school-age mothers to leave school.[7]

In a similar fashion, youth workers exclude visibly pregnant girls from recreation programs; mental health workers are uneasy about having them in group therapy sessions. Some welfare caseworkers react with hostility toward early, unwed motherhood; family members are often angry and disapproving.[8] One observer pointed out that city bus drivers sometimes disregard policy directives and refuse to accept student passes from pregnant girls; even in states where they are protected by statute, physicians may be reluctant to examine or treat pregnant minors without parental consent.[9]

Overcoming societal neglect and punitive attitudes toward adolescent pregnancy requires more than enlightened official plans or hierarchical policy coordination. On the federal level, the Office of Civil Rights' firm enforcement of regulations prohibiting sex discrimination would be a first step toward eliminating outdated policies and discriminatory practices. On the community level, equal opportunity begins with an adequately funded capacity to monitor school and health care policies, to identify and correct institutional biases and to intervene in response to specific problems. On a personal level, individual school-age girls need direct assistance in overcoming a counselor's "sympathetic" advice in favor of leaving school, in countering a caseworker's tolerant resignation to the young mother's "limited future," in offsetting ostracism, neglect and judgmental harassment over trivial issues.

Extreme Scarcity of Basic Services Results in Excluding Young Mothers

The Child Welfare League estimated earlier this year that more than seven million children under age six need subsidized day care services; more than half of these infants are age three or under. Currently, however, the League identified facilities for only 4.3 million children of all ages and income levels; when unlicensed and poor quality facilities are eliminated, fewer than a million acceptable spaces exist.[10] Presently, there is no national program to meet the need for subsidized infant and child day care, without which most adolescent mothers cannot hope to complete their education. Middle income families have a difficult time locating satisfactory facilities; a teenage mother's chances are, to say the least, more remote.

The General Accounting Office reported in January 1975 that only seven percent of eligible children had received medical screening as of June 30, 1973, four years after Congress required the Early and Periodic Screening, Diagnosis and Treatment program to be fully implemented for Medicaid-eligible children and infants. GAO suggested that "[D]HEW needs to take more aggressive action to bring the states into compliance with the law and [D]HEW regulations."[11] Nevertheless, the Department this fall set aside plans to penalize states which have failed to provide services to identify and prevent handicapping conditions.[12] Medical screening and preventive services, in other words, are largely unavailable to those covered by statutory mandates; young mothers and their offspring are even less likely to get early, comprehensive health care.

According to research reported this fall from the University of California, approximately one million pregnant women are sufficiently malnourished to endanger normal brain growth of their unborn infants.[13] In June 1975, the nation's only feeding program for pregnant and lactating women was serving 78,043 women of all ages.[14]

During FY 1973, federally supported Children and Youth projects reported serving 53,748 out of some 14 million male and female adolescents between 15 and 17 years old.[15] The Maternity and Infant Care program, also administered under the Office of Maternal and Child Health, falls short in a similar fashion. During 1973, the program had 133,200 new maternity admissions for women of all ages.[16] In other words, even if every available space in the Maternity and Infant Care system were reserved for teenage mothers, MIC would have reached less than one-fourth of the mothers age 19 and under.

> When documented problems are compared with services actually available, it is evident that serious needs are largely unmet and that school-age girls are in no position to compete for scarce services. Private agencies, the states and our cities are faced by acute financial pressures and have not been able to undertake significant initiatives to offset the inadequacies. Under these circumstances, planning, coordination and encouragement cannot transform token programs into meaningful day care, health, nutrition and social services. Without adequate financing to provide essential assistance, the prospects for improvement are as dim as ever.

Local Programs for School-age Parents Are Limited

By including every public and private project claiming to coordinate services to adolescent parents, the Consortium on Early Childbearing and Childrearing in 1974 identified "about 375" local school-age parent programs.[17] There is no estimate of the number of young women covered by these programs. Many local programs have admission restrictions, however, which exclude teenagers with previous pregnancies, poor school records, "inadequate" motivation, or other characteristics defined as unsuitable by program officials.[18]

The only research which has attempted to identify services available through local school-age parent programs was a survey of cities with populations of 100,000 or more. Even in these urbanized areas (where school-age motherhood is statistically most common and where public assistance programs are most likely to be sophisticated), 14.4 percent of the large cities had no special programs, however limited, for school-age mothers. Of 111 large cities which had such programs, participation was limited and services were minimal when judged by the standards of S.2538. Of these large cities, 48 reported caring for fewer than 100 girls a year, 44 reported serving between 100 and 499 girls and only nine of the cities claimed to help 500 or more girls. The most frequent services were counseling, social services, special education, special health classes and instruction in family life education. Of the cities surveyed, only half reported providing medical care or offering contraceptive services.[19]

The local programs were sponsored by government as well as voluntary agencies. The researchers reported that education, health and welfare departments, Model Cities programs and Maternity and Infant Care projects provided public support; Y's, Planned Parenthood affiliates, maternity homes, medical schools and United Funds offered voluntary agency support. Despite dedicated staff members and enlightened leadership support, the programs left many needs unmet or partially unmet. The investigators concluded that "more adequate services should have a higher priority in future health and education programs."[20]

> In smaller cities, towns, villages and rural areas, the prospects for meaningful assistance to school-age mothers is even more bleak than in the nation's large cities. And in the cities, gaping inadequacies in the service system have not responded to commendable goals, personal dedication, or attempts at "coordination." Local projects cannot expand their services nor open their enrollment without adequate additional financing; new programs will not emerge without realistic outside funding.

Preventive Programs Are Inadequate

As I outlined during my testimony of November 4, only a fraction of sexually active teenagers have access to appropriate contraceptive information and services. School-age women lack experience in finding concerned, qualified gynecologists; they are vulnerable to rejection and disapproval from unsympathetic nurses, receptionists and physicians; they seldom have money of their own for private medical care. In essence, most young persons in need of family planning help really need help from organized family planning clinics. Organized clinics currently serve about a million teenagers out of three to four million who are at risk of unwanted pregnancy. Clinics have devoted a large share of their resources to young women with nearly 30 percent of their caseload age 19 and younger.[21] At an average cost of $66 a year per patient, the clinics offer outreach and educational services, contraceptive examinations and care, cancer and VD screening, urinalysis and blood tests. When help of this kind is available, unwanted pregnancies and illegitimacy rates decline, maternal health risks drop, infant deaths and illnesses are averted, abortion needs decrease and family disruptions decline.

But the fact remains that family planning clinics have not been able to keep up with the burgeoning need for help among school-age patients. Publicly-assisted clinics are operating beyond their intended capacity with financing that has not increased since 1972. Short of turning away present patients or abandoning their commitment to high quality medical care, these clinics simply cannot help additional unserved teenagers unless they receive additional support.

The limitations of organized family planning programs are compounded by failure of the schools and other appropriate media to offer forthright, factual information about sex and human reproduction. Furthermore, almost three years after the Supreme Court's abortion decisions, availability of legal abortion services remains highly uneven. The rate of legal abortion was less than five per 1,000 women of childbearing age in 17 states compared to a nationwide average of 16.2 per 1,000 women. The disparity suggested by these statistics falls most heavily on adolescents since cost, misinformation, legal consent requirements and lack of facilities all impinge with unusual severity on a teenager's opportunity to decide, with the advice of a physician, whether to terminate an unwanted pregnancy. If services were uniformly accessible, an estimated 200,000 additional teenagers would have obtained abortions in 1974.[22]

> Unwanted school-age pregnancies will not decline so long as adolescents have little opportunity to make informed, responsible decisions about sexual activity, pregnancy and childbearing. Increasing births to teenagers result from the declining age of fecundity, long-range changes in American family life and new patterns of individual behavior. These trends are disturbing to some, but pregnancy is not an antidote; the threat of pregnancy is not a deterrent. The effectiveness of any program seeking to give youngsters genuine options depends on our willingness to recognize that young persons are entitled to exercise the same right we espouse for adult Americans, the right to freely determine when to have children and how many children to have. A compassionate, effective approach does not make the crisis of an unintended pregnancy a prerequisite for help. It encourages the expansion of family planning services, sex education and uncoerced decision-making on abortion.

Recommendations

School age girls and boys should be able to make decisions regarding initiation of sexual activity and parenthood in full knowledge of the consequences of their actions and of the alternatives available to them. They should have educational programs which offer information about sexuality, human reproduction and family planning. If they decide to become sexually active, they should have access to programs which provide acceptable contraceptive means for avoiding unwanted pregnancy. If unprotected intercourse occurs, young persons should be able to determine reliably and conveniently if pregnancy has resulted. When accidental pregnancies are confirmed, young persons should be able to determine the subsequent course of action with full knowledge of services available to them--abortion services, if their decision is to terminate the pregnancy, or health, social and supportive services if the decision is to carry the pregnancy to term. Only such a broad-based program, offering youngsters the full range of options, would meet either the test of constitutionality or the requirement of neutrality which government programs ought appropriately to fulfill in as senstive and personal an area of decision-making as this one.

With the above, basic recommendations in mind, we suggest that four considerations also deserve attention. First, a program addressing the needs of all teenaged mothers would necessarily require a much larger authorization of funds than is provided in S.2538. In view of fiscal constraints confronting our nation, a difficult choice appears to be inevitable--either to attempt the "coordination" of piecemeal efforts or to target attention on those girls and babies in greatest need. Given the inadequacy of existing services, we doubt that a strategy of "coordination" through a system of state plans and advisory councils will yield benefits sufficient to justify the expenditures involved. Direct help is necessary for those facing the greatest risks and the heaviest burdens. Because they have the fewest resources for coping with the responsibilities of parenthood and the least experience in negotiating the health and social assistance delivery systems, we would recommend the second alternative-focusing on the 125,000 young women age 16 and under who give birth each year.

Second, the Administration's efforts to cut funding for family planning project grants and the states' failure to implement family planning mandates under the Title XIX Medicaid program and the Title XX Social Services Program both contribute to the problem of school-age pregnancy. Although the Social Security Act requires Medicaid and social service programs to furnish family planning to eligible, low-income persons "including minors who can be considered to be sexually active," many states make no real effort to provide information and services to young people; the Administration has, for the most part, accepted their inaction. DHEW, in guidelines for implementing the Early and Periodic Screening, Diagnosis and Treatment program under Medicaid, fails inexplicably to suggest the provision of family planning services to young persons who have acknowledged that they are sexually active, limiting the suggested treatment to cancer screening, VD tests and pelvic examinations. To offset the Administration's passivity and the states' disparate, unconcerned response, we would recommend aggressive congressional oversight of the way in which family planning services are provided through Title XIX and Title XX. We would recommend full funding for family planning project grants programs recently reauthorized under Title II of the Health Services Act and suggest the consideration of additional funding authorizations earmarked for special adolescent family planning projects.

Third, a substantial proportion of young women seeking verification of pregnancy are not actually pregnant. According to one report, public and private family planning providers find that from 30 to 50 percent of the young people who come for pregnancy tests are found not to be pregnant.[23] A nationwide program which ignores the immediate needs of these young women or recognizes their problem only to the extent of sending them elsewhere will add to the incidence of unwanted births. We would recommend a national pregnancy testing effort in a program for school-age girls, and add the requirement that sensitive, appropriate contraceptive services be furnished to those who want them.

Fourth, research on adolescent pregnancy--its determinants and consequences and the outcome of potential intervention techniques--has been severely limited. Allocating some resources for investigation and research may, in the final analysis, do more to improve infant, maternal and family well-being than any other strategy. Until we know more, we cannot hope to offer school girls and their infants fully equal opportunities. We would recommend authorization of funds for such research.

We urge, in closing, that you seek further reactions and suggestions from other organizations with experience in serving school-age girls. The framework of problems and considerations identified in this letter can undoubtedly be expanded and refined. The Planned Parenthood Federation, meanwhile, continues to offer whatever additional cooperation and support is necessary to develop a long-term, responsible program.

Sincerely yours,

Jack H Vaughn

Jack Hood Vaughn
President

JHV/eb

Footnotes

[1] Other states provided AFDC benefits as a result of court orders that were subsequently overturned by the U.S. Supreme Court (see Family Planning/Population Reporter, 3:73, 1974 and 4:14, 1975). The Social and Rehabilitation Service of DHEW has not monitored changes in policies on AFDC benefits in behalf of the unborn since the Supreme Court acted in March 1975, affirming the states' option to deny benefits in behalf of the unborn. Burns v. Alcala, U.S. Supreme Court, No. 73-1708.

[2] The Social Services Amendments of 1974 included provisions for establishing paternity and support responsibilities. Final regulations were promulgated by DHEW June 26, 1975 making "cooperation in obtaining support" a condition for eligibility for AFDC assistance. Federal Register, Vol. 40, No. 124, p. 27154.

[3] Half the states permit payments in behalf of dependent children when an unemployed father is in the home.

[4] Lund v. Affleck, USDC, R.I., No. 74-36, January 15, 1975. The Rhode Island policy, like many which affect young mothers, was unwritten. DHEW's Social and Rehabilitation Service reports that many state agencies are reluctant to make a minor parent the payee for AFDC benefits. As Rhode Island discovered, however, outright prohibitions on the basis of age violate the Social Security Act.

[5] The Alan Guttmacher Institute, analysis of the states' final Title XX social services plans, November 1975.

[6] Title IX of the Education Amendments of 1972 prohibits sex discrimination in federally assisted educational institutions; regulations implementing Title IX and expressly prohibiting discrimination against pregnant students and student parents became effective July 1975. In addition to statutory protection, the courts have repeatedly recognized school-age mothers' right to equal educational opportunity on constitutional grounds.

[7] Children's Defense Fund, Children Out of School in America, Washington Research Project, Inc., Cambridge, Massachusetts, October 1974.

[8] Howard, Marion, "Bringing about Change." The Teenage Pregnant Girl, Jack Zackler and Wayne Brandstadt, eds., Charles C. Thomas, Springfield, Illinois, 1974.

[9] Braen, Bernard B., "The School-Age Pregnant Girl," Clinical Child Psychology Newsletter, Summer-Fall 1971, pp. 17-20.

[10] Reid, Joseph H., executive director of the Child Welfare League of America, testimony before a joint hearing of the Subcommittee on Children and Youth, the House Select Subcommittee on Education and the Senate Subcommittee on

Employment, Poverty and Migratory Labor on the Child and Family Services Acts of 1975, February 21, 1975.

[11] Comptroller General of the United States, Improvements Needed to Speed Implementation of Medicaid's Early and Periodic Screening, Diagnosis and Treatment Program, January 9, 1975.

[12] "'Near Complete Collapse' of EPSDT Program Charged at Hearing," Drug Research Reports, Vol. 18, No. 42, October 15, 1975, p. 13.

[13] Livingston, Robert B., "Underdevelopment of the Human Brain," mimeo, University of California, San Diego, School of Medicine, November 2, 1975.

[14] Program Reporting Office, Food and Nutrition Service, U.S. Department of Agriculture.

[15] Monitoring and Analysis Division, Office of Maternal and Child Health, U.S. Department of Health, Education and Welfare, personal communication, November 24, 1975.

[16] Ibid.

[17] Nelson, Shirley A., Sharing, Consortium on Early Childbearing and Childrearing, Spring 1974.

[18] Howard, Marion, "Programs for Pregnant School Girls," Children's Bureau Research Reports, No. 2, Appendix B, 1968, p. 75.

[19] Wallace, Helen M., et al, "A Study of Services and Needs of Teenager Pregnant Girls in the Large Cities of the United States," American Journal of Public Health, 63:5, 1973.

[20] Ibid.

[21] Dryfoos, Joy, "Family Planning Patients by Single Years, 21 and Below," mimeo, The Alan Guttmacher Institute, October 10, 1975.

[22] Tietze, Christopher, et al, Provisional Estimates of Abortion Need and Services in the Year Following the 1973 Supreme Court Decisions, The Alan Guttmacher Institute, New York, 1975.

[23] "Teen Family Planning Clinics Meet Urgent Personal, Social Needs," Family Planning Digest, 1:3, May 1972.

Senator **Kennedy**. Thank you very much.
We stand in recess.
[Whereupon, at 1:30 p.m., the hearing was adjourned.]

APPENDIX

Illinois Association For **Comprehensive Services To School Age Parents Inc.**

TESTIMONY TO THE UNITED STATES SENATE
SUBCOMMITTEE ON HEALTH
of the
COMMITTEE ON LABOR AND PUBLIC WELFARE
on
S2538 NATIONAL SCHOOL-AGE MOTHER AND CHILD HEALTH ACT OF 1975

Submitted by

Ernest N. Gullerud, DSW, President, Illinois Association for
Comprehensive Services to School-Age Parents and
Assistant Professor, School of Social Work
University of Illinois, 1207 West Oregon Street
Urbana, Illinois 61801

and

Carl D. Holland, ACSW, Board Member
Illinois Association for Comprehensive Services to
School-Age Parents and
Lecturer, School of Social Work
University of Illinois, 1207 West Oregon Street
Urbana, Illinois 61801

The Illinois Association for Comprehensive Services to School-Age Parents is a not-for-profit, statewide, voluntary organization with primary goals of (1) advocacy for services to school-age parents, (2) public education, and (3) agency consultation. School-age parents, medicine, health, education, social work, and other human service disciplines are represented in the organization.

The Illinois Association for Comprehensive Services to School-Age Parents joins with the National Alliance Concerned with School-Age Parents in commending Senator Edward M. Kennedy in the sponsorship of S 2538 the National School-Age Mother and Child Health Act of 1975. The Illinois Association especially supports the components of the measure that allows school-age parents and their children the opportunity to secure parenting services including health, education (including vocational), and social services.

If health, education (including vocational training and job placement), and social services are adequately planned, funded, coordinated, and made accessible to youth, the necessary support can be provided to aid them in making important decisions. Family life will be strengthened and youth who become parents and their offsprings will develop into adults who will contribute to rather than be dependent upon society.

A. Documentation of Need for Special Legislation to Provide Services to School-Age Parents

In Senator Kennedy's introduction to the National School-Age Mother and Child Health Act of 1975, he listed four conclusions based upon survey and research

Findings regarding the incidence and problems associated with school-age parentage in the United States:

"(1) pregnancy among adolescents is a serious and growing problem;

"(2) such pregnancies are a leading cause of school dropout, familial disruption and increasing dependency upon welfare and other community resources;

"(3) the children of adolescent mothers are often at high risk during their early years, leading to increased infant morbidity and mortality;

"(4) health, education, counseling and other social services to assist adolescent mothers who choose to bear their children are often inadequate, disorganized and fragmented."

Research by the Illinois Association for Comprehensive Services to School-Age Parents indicates that these problems occur in the State of Illinois. Data regarding the incidence of school-age parenthood as well as time when the mother obtains medical care were obtained from Illinois Vital Statistics in 197[illegible] and 1970. Data regarding the nature and organization of social services were obtained from a survey sponsored by the Illinois Association for Comprehensive Services to School-Age Parents entitled "Toward Becoming an Advocate for School-Age Parents: A Survey and Recommendations for the Illinois Association for Comprehensive Services to School-Age Parents, Incorporated", conducted by Ernest N. [illegible]erud, DSW.

Congressional findings and Illinois data are as follows:

1. "Pregnancy among adolescents is a serious and growing problem".

   a. In 1970, Illinois Vital Statistics revealed the following information regarding birth rates of school-age mothers (10-19 years of age):

      .....overall birth rate was 48.[illegible]/1000
      .....birth rate for whites was 35.8/1000
      .....birth rate for blacks was 119.[illegible]/1000
      .....birth rate for other races was 14.1/1000

   b. Birth rates for the younger school-age mothers (10-14) is increasing for all racial groups. The incidence is higher among non-whites than whites according to the 1970 Illinois Vital Statistics.

(Source: Illinois Vital Statistics, 1970)
Live Birth Rates Expressed in Rates/1000 of the Female Population

Years	All Races		White		Non-White	
	10-14	15-19	10-14	15-19	10-14	15-19
1970	1.3	68.1	[illegible]	50.7	5.9	162.7
1960	0.7	[illegible]	[illegible]	[illegible]	[illegible]	195.7
1950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940*	----	-----	---	----	---	-----
1930	0.2	37.5	0.1	35.[illegible]	2.0	104.0
1922	0.2	41.9	0.1	40.[illegible]	2.4	112.4

* 1940 statistics not presented because data was not subdivided by the age groups in that year.

c. School-age mothers bear a significant number of children in relation to the total population. This trend is more predominant in the non-white population. The following data from the 1973 Illinois Vital Statistics documents this trend:

Age Groups			
Race	All Births	School-Age (10-19)	
		Frequency	Percent of Total
White	129,430	19,124	14.5
Non-White	39,562	12,954	32.7

One-seventh of all white births and one-third of all non-white births are by school-age parents.

d. Illegitimacy occurred more frequently for non-white than white mothers, both for the total and for the school-age parent populations in 1973.

Illegitimate Births				
Race	Frequency		Percent	
	Mothers of All Ages	School-Age Mothers	Mothers of All Ages	School-Age Mothers
White	7,755	3,590	28.3	26.9
Non-White	19,631	9,746	71.7	73.1
Total	27,386	13,336	100.0	100.0

....Non-white mothers gave birth to about two and one-half times as many illegitimate births as did white mothers.

2. "Such pregnancies are a leading cause of school dropout, familial disruption and increasing dependency upon welfare and other community resources;"

Illinois Association for Comprehensive Services to School-Age Parents has only begun to analyze data regarding the social consequences of school-age parenthood in Illinois. However, data obtained from Illinois Vital Statistics does give indirect support to the above finding. Interpretation of that data is based on these assumptions:

a. That mothers of illegitimate children, particularly the younger girls, are either dependent upon their families and/or public assistance for financial support for medical and living expenses.

b. That marriage in itself is no solution for the problems of school-age parents. The high percentage of divorces and lack of earning potential for young families, particularly if their education is terminated prior to graduation from high school are major reasons for stating this assumption.

The extent of illegitimacy for school-age parents during 1973 is evidenced in the following table:

Frequency and Percentage Distribution of
Births by Status, Age and Race, 1973

Frequency

Status of Birth	Age					
	10 - 14		15 - 19		20 or over	
	White	Non-White	White	Non-White	White	Non-White
Illegitimate	118	514	3,472	9,232	4,165	9,785
Legitimate	58	33	15,476	3,175	106,141	16,723
TOTAL	176	547	18,948	12,407	110,306	26,508

Percentage

Status of Birth	Age					
	10 - 14		15 - 19		20 or over	
	White	Non-White	White	Non-White	White	Non-White
Illegitimate	33.0	6.0	81.7	25.6	96.2	63.1
Legitimate	67.0	94.0	18.3	74.4	3.8	36.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Illinois Vital Statistics, 1973

The results are as follows:

1. The younger the age of the mother, the more likely birth is illegitimate.

....for whites, percent of illegitimate birth by age group is as follows: 67% for 10-14, 18.3% for 15-19, and 3.8% for 20 and over.

....for non-whites, percentages are: 94.0% for 10-14, 74.4% for 15-19, and 36.9% for 20 or over.

b. The extremely high percentage of illegitimate births among non-whites indicates that either the mother and/or the girl's parents is/are responsible for child-rearing.

c. The high percentage of illegitimate births among the younger white school-age mother indicates that the mother and/or the girl's parents are responsible for child rearing.

In 1973, vital statistics pertaining to divorce are as follows:

.....twenty-five percent of the divorces were granted to women under 24. (11,103 out of 44,571 divorces).

.....thirty-seven percent of divorces were obtained by marriages which lasted less than five years.

These statistics provide evidence that early marriages are high risk with a high likelihood of divorce.

3. "The children of adolescent mothers are often at high risk during their early years, leading to increased infant morbidity and mortality;"

Illinois Association for Comprehensive Services to School-Age Parents has not yet tabulated data related to this finding. Further research is needed in this area to document specific problems and needs.

4. "Health, education, counseling and other social services to assist adolescent mothers who choose to bear their children are often inadequate, disorganized and fragmented."

a. Medical Services: Medical authorities indicate that school-age mothers, especially those in younger age groups should have early medical attention because of their high risk status. Analysis of Illinois Vital

Statistics pertaining to time in pregnancy when medical services are obtained reveals that the younger the age of the mother, the less likely early medical assistance has been obtained. Time in pregnancy when medical services were obtained by the mother was analyzed for all births as well as legitimate and illegitimate births.

(I). All Births: Table 1 presents data regarding time in pregnancy by age grouping when the mother obtained medical assistance. The results are:

.....the younger the mother, the less likely early medical services were obtained. This is true for both whites and non-whites. (For whites - 30% of 10-14, 52.3% of 15-19, and 76.2% of 20 and over mothers obtained medical services in the first trimester of their pregnancy. For non-whites, 26.3% of 10-14, 37.3% of 15-19, and 52.3% of 20 and over group).

.....non-white school-age mothers are less likely to receive early medical assistance than white mothers.

.....there is a relatively high percentage of 10-14 year old mothers who receive no medical care during their pregnancy when compared to other age groups. (For whites- 5.7% of 10-14, 1.6% of 15-19, and .7% of 20 or over. For non-whites- 4.8% of 10-14, 4.9% of 15-19, and 2.6% of 20 or over).

.....with exception of the 10-14 age group, non-white mothers are more likely to receive no care than white mothers.

(2) Comparison of Times When Medical Assistance is Obtained for Legitimate and Illegitimate Births: Table 2 contains data regarding legitimate births and Table 3 contains data regarding illegitimate births. The results are as follows:

.....White mothers of legitimate children are more likely to get early medical care than are mothers of illegitimate children. (For legitimate births, 31.0% of 10-14, 56.6% of 15-19, and 77.5% of 20 or over receive medical attention in the first trimester. For illegitimate births, 29.7% of 10-14, 33.0% of 15-19, and 42.1% of 20 and over).

.....Non-white mothers of illegitimate children of the 10-14 group are more likely to receive early medical attention than mothers of legitimate children. (26.6% for illegitimate, 21.2% for legitimate)

.....Non-white mothers of illegitimate children of the 15-19 and 20 or over group are less likely to receive early medical attention than mothers of legitimate children. (For legitimate, 42.1% of 15-19 and 57.7% of 20 or over. For illegitimate, 35.7% of 15-19 and 43.3% of 20 or over.)

Table 1

Frequency and Percentage Distributions of Trimester When Mother Obtained Medical Care For All Births by Age and Race, 1973

Frequency

	10 - 14		15 - 19		20 or over		Total	
Trimester	White	Non-White	White	Non-White	White	Non-White	White	Non-White
First	53	144	9,909	4,634	84,063	13,922	94,025	18,700
Second	66	269	6,784	5,732	20,854	9,821	27,704	15,822
Third	45	104	1,921	1,482	2,875	2,021	4,842	3,607
No Care	10	26	302	494	810	680	1,113	1,200
Unknown	2	4	32	65	1,704	164	1,746	233
Total	176	547	18,948	12,407	110,306	26,608	129,430	39,562

Percentage

	10 - 14		15 - 19		20 or over		
	White	Non-White	White	Non-White	White	Non-White	
First	30.1	26.3	52.3	37.3	76.2	52.3	
Second	37.5	49.2	35.8	46.2	18.9	36.9	
Third	25.6	19.0	10.1	11.9	2.6	7.6	
No Care	5.7	4.8	1.6	4.0	.7	2.6	
Unknown	1.1	.7	.2	.5	1.5	.6	
Total	100.0	100.0	100.0	99.9*	99.9*	100.0	

Source: Illinois Vital Statistics, 1973

*Percents not equal to 100 because of rounding error.

Table 2

Frequency and Percentage Distributions of Trimester When Mother Obtained Medical Care for Legitimate Births by Age and Race, 1973

Frequency

	10 - 14		15 - 19		20 or over		Total	
Trimester	White	Non-White	White	Non-White	White	Non-White	White	Non-White
First	18	7	8,763	1,337	82,311	9,643	91,092	10,987
Second	21	13	5,216	1,337	19,250	5,631	24,[illegible]	6,981
Third	18	9	1,049	318	2,613	1,011	3,680	1,338
No Care	1	4	159	163	637	335	797	502
Unknown	--	--	289	20	1,330	103	1,619	123
Total	58	33	15,476	3,175	106,141	16,723	121,675	19,931

Percentage

	10 - 14		15 - 19		20 or over		
	White	Non-White	White	Non-White	White	Non-White	
First	31.0	21.2	56.6	42.1	77.5	57.7	
Second	36.2	39.4	33.7	42.1	18.1	33.7	
Third	31.0	27.3	6.8	10.0	2.5	6.0	
No Care	1.7	12.1	1.0	5.1	.6	2.0	
Unknown	--	--	1.9	.6	1.2	.6	
Total	99.9*	100.0	100.0	99.9*	99.9*	100.0	

Source: Illinois Vital Statistics, 1973

*Percents not equal to 100 because of rounding error.

Table 3

Frequency and Percentage Distributions of
Trimester when Mother Obtained Medical Care
for Illegitimate Births by Age and Race, 1973

Frequency

	10 - 14		15 - 19		20 or over		Total	
Trimester	White	Non-White	White	Non-White	White	Non-White	White	Non-White
First	34	137	1,146	3,297	1,752	4,27[illegible]	2,933	7,713
Second	45	256	1,568	4,395	1,604	4,190	3,217	8,841
Third	27	95	558	1,164	577	1,010	1,162	2,269
No Care	9	22	143	331	164	345	316	698
Unknown	2	4	57	45	68	61	127	110
Total	115	514	3,472	9,232	4,165	9,885	7,755	19,631

Percentage

	10 - 14		15 - 19		20 or over		
	White	Non-White	White	Non-White	White	Non-White	
First	29.7	26.[illegible]	33.0	35.7	42.1	42.7	
Second	38.1	49.8	45.2	47.6	38.5	42.8	
Third	22.[illegible]	18.5	16.1	12.6	13.8	10.3	
No Care	7.6	4.3	4.1	3.6	3.9	3.5	
Unknown	1.7	.8	1.6	.5	1.6	.6	
Total	100.0	100.0	100.0	100.0	99.9*	99.9*	

Source: Illinois Vital Statistics, 1973

*Percents not equal to 100 due to rounding error.

3) In summary, the data indicates that school-age parents, especially those in the 10-14 age group, do not receive early medical care. This is significant in that it is the highest risk group. For the most part, mothers of illegitimate children receive medical attention later than mothers of legitimate children. (The only exception is a slight difference between the 15-19 non-white group). School-age mothers produce a disproportional share of illegitimate births. Therefore, they are even moreof a high risk group than the 20 or over group.

The major conclusion one reaches is that the school-age mother is in a double jeopardy situation in comparison to other groups, thus she warrants special consideration in planning and providing services.

b. Other Social Services: Data obtained from the Illinois Association for Comprehensive Services to School-Age Parents survey of professionals involved in providing services to school-age parents reveal the following lacks, gaps, and problems in providing services:

.....Few persons in Illinois communities are aware of the special problems and needs of school-age parents.

.....Persons tend to view school-age parents as persons who are in difficulty because of immoral and irresponsible behavior.

.....The school-age father is rarely sought out as a client.

.....There is little likelihood of school-age parent programs being developed or implemented in the State of Illinois at the present time.

.....Major obstacles in planning and implementing services to school-age parents were, in order of importance, lack of coordination among state agencies, limited funding, lack of strong leadership from any segment in the community as well as state, and changes in service priorities of the Illinois Department of Children and Family Services.

.....The adequacy of services available to the school-age parents can be summarized as follows: Services for school-age parents are moderately adequate in terms of education, counseling, pre and post-natal medical care for mother and child, and provision of financial assistance for medical expenses. However, services are inadequate in other areas. School-age parents experience difficulty in receiving adequate financial assistance for needs beyond medical expenses, don't receive adequate sex education, have difficulty in getting information about sources of services available, lack child care facilities, lack employment training and job placement, and are rarely involved in planning and evaluating the services they receive and need.

.....Leadership and advocacy for programs for school-age parents has come from a few dedicated individuals. There are virtually no organizations with the exception of the Illinois Association for Comprehensive Services to School-Age Parents which are promoting services for school-age parents.

B. Recommendations for Legislation

Examination of the data in the preceding section leads to the following conclusions about the problems and needs of services to school-age parents:

1. School-age parents should be defined as a specific target population with unique problems and needs.

2. Present services available to school-age parents are inadequateand badly organized.

3. School-age parents have few advocates to speak on their behalf.

On the basis of the above conclusions, the Illinois Association for Comprehensive Services to School-Age Parents strongly supports S 2538 the National School-Age Mother and Child Health Act of 1975. The proposal as presently stated contains provisions to deal with the aforementioned problems.

We urge that the scope of the Bill be expanded to include the school-age father. He is often forgotten as a person with needs, and is often sought our for punitive action. Observations of professionals and research has pointed out that he can be a source of support to the mother and child and often truly interested in the fate of his offspring. Curtailment of services will more likely discourage him from active involvement and interest in the welfare of the mother and child.

The prospects for obtaining adequate funding for the educational and social services can be increased by specifying other social legislation which could provide support. Thus, we recommend that the measure be amended to specifically mention these primary sources of funds.

C. In order for S2538 the National School-Age Mother and Child Health Act of 1975 to include both these recommendations, we urge that the following amendments be added to the proposed Title III, Public Health Service Act, Part C:

1. Section 320A (k) be amended as follows:

"(3) health education for adolescent mothers and fathers;

"(4) community outreach and information services for adolescent mothers, fathers and their families;

"(5) family planning services and counseling for adolescent mothers and fathers;

"(6) continuing education of mother and father (including vocational, alternative education, and assistance in locating employment);

2. Section 320A (1) be amended to read as follows:

"provide assurances that each and every program has made and will make and will continue to make every reasonable effort to collect appropriate reimbursement for its cost:

"(1) in providing health services to persons who are entitled to insurance benefits under title XVIII of the Social Security Act, to medical assistance under a State plan approved under title XIX of such Act, or to assistance for medical expenses under any other public assistance program or private health insurance program;

"(2) in providing educational services under titles I, IV, VII, and IX of the Elementary and Secondary Education Act of 1965 as amended or to assistance for educational assistance under any other public or private educational program;

"(3) in providing social services under titles IVA and XX of the Social Security Act or to assistance for social services programs under any other public or private social service program;

"(4) in providing services to prevent child abuse and neglect under the Child Abuse and Neglect Prevention Act or to assistance under any other public or private child abuse and neglect program;

"(5) in providing vocational training, job training, retraining and job placement under the Vocational Education Act of 1963 as amended or to assistance under any other public or private vocational program."

COLLEGE OF PHYSICIANS AND SURGEONS OF COLUMBIA UNIVERSITY/
[illegible] INSTITUTE FOR THE STUDY OF HUMAN REPRODUCTION
NEW [illegible]

SOCIAL CONSEQUENCES OF TEENAGE CHILDBEARING*

Harriet B. Presser

There is remarkable consensus in this country that teenage childbearing constitutes a serious social problem. Implicitly, the assumption is that there are negative social consequences of early parenthood that could be averted if teenagers were to postpone having children until their twenties. Although this may be true, there is surprisingly little empirical evidence to justify this position.

Most of the research on teenage parenthood is concerned with illegitimacy, although only about one-third of teenage mothers are unmarried at the time of birth (U.S. Department of Health, Education, and Welfare, 1975: Table 1-32). Many of these studies focus on the determinants of illegitimacy, such as attitudes toward sex, contraceptive knowledge and practice, family relationships, and cultural factors (c.f., Vincent, 1961; Roberts, 1966; Furstenberg, 1971; and Rains, 1971). Empirical studies on the consequences of illegitimacy are generally limited to the problems of recidivism, school drop-outs, and welfare dependency (c.f., Pakter, et al., 1961; Stine, et al., 1964; Crumidy and Jacobziner, 1966; Sarrell and Davis, 1966; Currie, et al., 1972; Foltz, et al., 1972; and Jekel, et al., 1973). An important exception is the recent study by Furstenberg (1975) which looks at a variety of social consequences of early adolescent childbearing (ages 15 to 17).

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*Paper presented at the Conference on the Consequences of Adolescent Pregnancy and Childbearing, held in Bethesda, Maryland, October 29 and 30, 1975. The research upon which this paper is based was performed pursuant to Contract No. N01-HD-2-2038 with the National Institutes of Health, DHEW. The field work for the reinterview was funded by The Population Council. The author gratefully acknowledges the research assistance of Katherine Brown and Liliane Floge, and the computer programming assistance of Pi-Yu Ting.

Although based on a clinic sample (as are most studies of illegitimacy), this study is longitudinal and includes a comparison with female classmates five years later. Furstenberg (1975:343) concludes that there is "a sharp and regular pattern of differences in the marital, fertility, educational, and occupational careers of the young mothers and the classmates." The classmates were more successful in realizing their aspirations than were the young mothers.[1]

Furstenberg's study is also distinctive in interviewing fathers and children some years after the study began. The men were extremely difficult to locate, which may explain why there are so few studies on unmarried fathers (Vincent, 1960; Pannor, et al., 1971). They are, nevertheless, an important population to study in order to fully grasp both the determinants and consequences of early parenthood.

Teenagers who choose to marry rather than have an illegitimate child (or an abortion) may experience negative social consequences as well. Premarital conceptions appear to be associated with economic difficulty and shorter birth intervals (Freedman and Coombs, 1966a and 1966b), as well as high rates of separation and divorce (Monahan, 1960). Whether getting married when very young because of pregnancy (and in lieu of an abortion) is socially more advantageous than being an unmarried mother (or father) has never been rigorously demonstrated. It is difficult to assess what people would have done with their child-free time had they not become parents when they did.

In this paper, we shall present some of the findings from our study of women who recently became mothers in New York City. We shall compare women who had their first births when they were teenagers with women who were in their twenties, and look at differences in their role aspirations and behavior. Our time perspective is limited, but our data do permit age comparisons that should be revealing. Before proceeding with the analysis, we shall briefly describe the sample.

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[1] Dr. Furstenberg will be summarizing the findings of his study in some detail at this conference.

Nature of the Sample

The sample was designed so that we could study the determinants and early consequences of the age at which women have their first birth, focusing on the roles of women. It is a representative sample of 408 women drawn from the birth records of women residing in three boroughs of New York City (Brooklyn, the Bronx and Queens) who had their first child in July of 1970, 1971 or 1972. Only women who were born on the mainland United States were eligible; this excluded first-gen[illegible]on migrants from Puerto Rico and elsewhere. Nonwhites other than blacks [illegible]luded. Women whose first birth was a twin were considered ineligible, as were women whose first child was not residing with them. About 90 percent of first births in New York City occur to women aged 15-29, and our sample was restricted to this group of mothers.

Among the total of New York City mothers meeting the above sampling criteria, 38 percent were black and 30 percent of all first births were illegitimate. This population was stratified by race of mother and legitimacy status of the child (as well as by age at first birth) so that the sample would be representative in this regard. Women were not proportionately drawn into the sample, however, by year of first birth. The sample was designed to include about 25 percent whose first birth was in July 1970, about 25 percent in July 1971 and about 50 percent in July 1972. (A major consideration here was the difficulty in locating women whose addresses, obtained from the birth records, were over a year old.) Women were interviewed in person during the period January 15-March 14, 1973. For about one-half of the sample, then, their first child was about seven months old at the time the mother was interviewed; the remainder of the sample was divided between those whose first child was about one-and-one-half years old and those whose first child was about two-and-one-half years old at the time of the interview.

Personal interviews were conducted by the National Opinion Research Center (NORC). We systematically put 709 cases into the field, of which 541 were located eligible cases. Seventy-six percent (408) of these eligible cases were interviewed.[1] Women who participated in the first interview were reinterviewed approximately one year later (February 1974), regardless of whether or not they were still residing in New York City. Again, NORC conducted the field work. We were able to locate and reinterview 358 women, or 88 percent of 408. Most of the reinterviews were by telephone (85 percent), but reinterviews were also conducted in person if a woman could not be reached by telephone (15 percent).

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[1] For a detailed breakdown of those not interviewed, and an evaluation of the reliability of the data, see Presser (1974a). There was minimal selective bias among those initially interviewed (determined by an analysis of birth record data) and among those reinterviewed (determined by an analysis of the first interview).

Teenage Childbearing and Women's Roles

We shall begin by considering the role accomplishments of women in our sample prior to motherhood. As may be seen in Table 1, the majority of women were married when they became mothers (72 percent), most had graduated high school (7[illegible] percent), and most had been in the labor force (74 percent).[1] There was, however, considerable variation in role accomplishments by mother's age at first birth. The younger the woman at the time her first child was born, the less likely she was to have achieved in these roles. This is especially true of teenage mothers:[2] only 39 percent were married, 33 percent had graduated high school, and 33 percent had worked -- suggesting that a first birth at a relatively young age has a restricting effect on women's role achievements.

This suggestion, however, assumes that women with early first births for the most part are not deliberately choosing early motherhood as an alternative to other role behavior, and would have otherwise accomplished more: marriage, higher education, and more work experience. It also assumes that young mothers will not eventually "catch up" with older mothers after their child is born. We cannot directly test these notions, but we can consider differences by mother's age at first birth in how they approach the mother role, such as their family size desires just before they became pregnant and the planning status of their first birth. We also have data on the role aspirations of women regarding marriage, school, and work. We shall assess some of the early consequences of teenage childbearing taking these aspirations into account as well as the role behavior of women after their first child was born.

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[1] Only jobs in which women worked at least six months (part-time or full-time) are included.

[2] "Teenage mothers" is used throughout this paper to refer to women who had their first birth at age 15 to 19; some were no longer teenagers at the time of the survey.

The Onset of Motherhood

Women were asked retrospectively whether, just before they became pregnant with their first child, they had any idea how many children they wanted to have altogether. Over 92 percent of the women said they did, and there was little variation by age at first birth. As shown in Table 2, the majority of women wanted either two (38 percent) or three children (24 percent). There was little difference by age at first birth in family size desires just prior to pregnancy.[1] This suggests that women did not start their families earlier because they wanted larger families.

Supporting this view is the fact that only 20 percent of teenage mothers in our study planned the birth of their first child.[2] This may be contrasted with 44 percent for mothers aged 20 to 23 at their first birth, and 70 percent for mothers aged 24 to 29 ($p < .05$). It is noteworthy that the majority of all first births in our sample were unplanned -- 56 percent. An unplanned birth does not necessarily mean that women did not want to become mothers, but it does suggest that they were not highly motivated toward assuming the mother role at that time.

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[1] Family size desires at age 16 (retrospectively reported) are also not related to age at first birth. In addition, we found that the older the mother at the time of first birth, the more likely she was to have most wanted at age 16 to be a housewife or mother rather than to have a specific occupation (see Presser, 1974b).

[2] Planning status was determined by asking respondents whether contraception was consistently practiced during the month the woman became pregnant with her first child, and if contraception was not employed, the reason or reasons. A card listing several possible reasons was provided; it included an "other" category in which additional reasons could be volunteered. First births to women who indicated that at least one of the reasons that they did not use contraception was that they were trying to have a baby (a specified option) were classified as planned. All other first births were classified as unplanned. For a distribution of other reasons stated for not using contraception, see Presser, 1974a.

"Non-planners" did, however, choose not to abort the pregnancy (a legal option for three-fourths of the women -- those who had their first birth in 1971 or 1972) or put the child up for adoption. Thus, once pregnant, they accepted the onset of motherhood relative to the alternatives.

Teenage mothers, it may be recalled, were predominantly unmarried mothers (see Table 1). For an unmarried woman who becomes pregnant and does not want an abortion, and prefers to keep the child, it is not altogether clear that she would benefit by marrying the father of the child. Although almost all of the unmarried mothers in our study wanted to get married at some future time, over one-half (52 percent) said that when they learned they were pregnant, they did not want to marry the child's father; most gave cogent reasons why not: he was irresponsible, a drug addict, an alcoholic, and so forth. Had they married, they may have been divorced or separated shortly thereafter. This remains to be tested.

There is some evidence from our study that fathers who were not married to the mother at the time of the child's birth were less educated than fathers married to the mother at this time. For births occurring to teenage mothers, 51 percent of the unmarried fathers were not high school graduates in contrast to 34 percent of the married fathers ($p > .05$). Although not a substantial difference, this suggests that many of the unmarried mothers may not have found much economic benefit from marriage.

In sum, the context in which teenagers became mothers appears to be different from those who postponed their first birth in that teenagers were more likely to enter this role unintentionally (at that time) and be unmarried. They did not differ in their family size desires before pregnancy. Being young, teenage mothers may subsequently / experience the consequences of an untimely birth to a greater extent than older women. We turn now to a consideration of how age at first birth may relate to the educational aspirations and achievements of women.

Education

We noted earlier that women who had an early first birth were those most likely not to have graduated high school: only 33 percent of the teenage mothers had done so (see Table 1). It is difficult to assess the extent to which pregnancy and subsequent childrearing are directly responsible for low educational attainment, but our study provides an opportunity to examine some relationships.

Thirteen percent of the mothers in our study were attending school at the time of the first interview -- that is, when their first child was between 7 months and 2 1/2 years old. The younger the mother, the more likely she was to be currently attending school: 25 percent of the teenage mothers were in school, in contrast to 7 percent of those aged 20 to 23 at first birth and 6 percent of those aged 24 to 29 ($p < .05$). The figure for teenage mothers is impressive when considering that many were unmarried and of low economic status, but our data suggest that many more would have been going to school had they postponed their first birth.[1]

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[1] The Board of Education's policy in New York City is to provide several options for pregnant teenagers in high school. The statement issued in 1968 to superintendents and secondary school principals remains in effect today:

> "These girls should be permitted to remain in their regular school program as long as their physical and emotional condition permits. An individual decision is necessary to determine what is in the best interest of each student found to be pregnant. The girl's parents and physician should be consulted in developing the educational plan to fit her needs. If she is a short time away from completing the term's work or from graduation, and, if her physician advises that she may attend classes, she should be encouraged to continue at her home school. Should this consultation lead to the conclusion that continued attendance at the home school may be detrimental to her physical or mental well-being, she should be transferred to one of the special centers or other suitable arrangements should be made for continuing her education. As in other school matters, the final decision will rest upon the good judgment of the principal of the home school who will consider all the factors involved." Special Circular No. 10, 1968-1969, Board of Education of the City of New York, September 27, 1968.

Women who were not currently attending school at the time of the first interview were asked the main reason they stopped going to school. Eleven percent said it was because they had become pregnant. For teenage mothers, the perc- is 36, as compared with only 3 percent for those aged 20 to 23 and 1 percent for those aged 24 to 29 ($p < .05$). Those in their early teens at first birth seem to have been most at risk of dropping out of school because of the pregnancy. For teenage mothers not currently in school, the percent who stopped going to school because they became pregnant by specific age is as follows:

15 & 16: 74% (19)
17: 38% (21)
18: 28% (25)
19: 19% (32)

Almost two-thirds of teenage mothers not currently in school did not graduate high school, and of these 60 non-graduates about one-half (47 percent) said the main reason for leaving school was the pregnancy. The next most common main reason was that they did not like school (18 percent).

Further indication that pregnancy may have restricted the educational attainment of many teenage mothers is provided by data on educational aspirations just prior to motherhood. Women not currently enrolled in school were asked retrospectively if, just before they had their first child, they had gone as far in school as they wanted to go, or whether they had wanted to go further. As shown in Table 3, teenage mothers who were not high school graduates were less likely to say they went as far as they wanted (17 percent) than high school graduates (29 percent). It may also be noted in this table that, among teenage mothers, those who were not high school graduates were somewhat more likely to be attending school after their first birth (27 percent) than high school graduates (20 percent).

Not only were women who became mothers in their teens more likely to be attending school soon after their first birth than older mothers, but of those not attending school, teenage mothers were more likely than older mothers to say that prior to their first birth they wanted to go further in school: 71 percent of the women aged 15 to 19 at first birth indicated further educational aspirations, as compared with 42 percent of those aged 20 to 23, and 43 percent of those aged 24 to 29 ($p < .05$). This does not, of course, necessarily mean that younger mothers wanted to achieve a higher level of educational attainment than older mothers: their educational attainment prior to motherhood was substantially lower. It may be seen in Table 4 that if the educational aspirations of mothers not currently attending school were in fact achieved, teenage mothers would still be less educated than older mothers. Having a child early certainly cannot explain all the variation in educational attainment, although having more child-free time might have raised the educational aspirations of some teenage mothers. It may be noted in Table 4 that, for those not currently in school, there is little difference in the level of educational aspiration between women who became mothers in their early rather than late twenties.

What happens to the educational aspirations of women after the birth of the first child? Women not currently enrolled in school at the time of the first interview were asked whether their plans now were to go back to school; if so, they were asked whether they planned to do so within the next few years. Over half of the women (52 percent) said they planned to go back to school sometime; 81 percent of these women were planning to go back within five years.

As may be seen in Table 5, teenage mothers were more likely to plan to go back to school than older mothers. This is especially characteristic of those who before their first birth wanted to go further in school: 78 percent of these teenage mothers planned to go back to school within five years. There is a positive relationship for all age groups between educational aspirations before the first birth and current plans (after the first birth) to return to school. It should be noted, however, that for each age group there is a substantial minority of women who before their first birth felt they had gone to school as far as they wanted but, after having a child, planned to go back to school. Correspondingly, there are some women who previously wanted to go further in school but, after having a child, did not plan to ever go back. Although both sets of responses are in the minority, they do suggest that the first birth for some women may alter their educational ambitions.

Employment

Three-fourths of the women in our study had worked outside the home prior to their first birth (see Table 1). The older the woman, the more years she had had in which to work. Accordingly, employment before the first birth was more characteristic of women who became mothers when they were 20 to 23 (84 percent) or 24 to 29 (98 percent) than 15 to 19 (39 percent).[1]

Of the women who worked before their first birth, over three-fourths (78 percent) were employed after they became pregnant. Seventy-two percent of teenage mothers who worked before their first birth worked within nine months preceding the birth, as compared to 74 percent for mothers aged 20 to 23 at first birth, and 84 percent for mothers aged 24 to 29 ($p > .05$). In other words, given work experience prior to motherhood, teenage mothers were only somewhat less likely to have worked during pregnancy than older mothers.

Shortly after the first birth, teenage mothers were less likely to be working than older mothers. The percent employed when the first child was 7 months old by age at first birth was as follows ($p < .05$):

15 to 19: 10%
20 to 23: 13%
24 to 29: 22%

For the total sample, 15 percent were employed at this time (9 percent full-time and 6 percent part-time). By the time the first child was 19 months old,

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[1] Only jobs of at least 6 months duration are considered.

23 percent of the mothers were employed (13 percent full-time and 10 percent part-time). Again, those who became mothers in their teens were less likely to be working than those who were in their twenties. The percent employed at that time by age at first birth was as follows ($p < .05$):

15 to 19: 13%
20 to 23: 23%
24 to 29: 32%

As we have seen, many women were going to school soon after their first birth, especially those who became mothers in their teens. To what extent does school attendance explain the lower employment rates of women with such early first births? Focusing on the time of the first interview (when the first child was between 7 months old and 2 years and 7 months old),[1] we may consider for those currently not attending school the difference by age at first birth in employment status.[2] For this subgroup, only 9 percent of those aged 15 to 19 at first birth were employed, as compared to 16 percent of those aged 20 to 23, and 24 percent of those aged 24 to 29 ($p < .05$). It appears, then, that school attendance does not explain the lower employment rates after the first birth of women who became mothers in their teens.

The lack of work experience or occupational skills necessary to obtain a reasonably well-paying job may be an alternative explanation. Work experience prior to the first birth is highly correlated with work experience after the first birth, and young mothers were most likely not to have worked prior to motherhood. An analysis of only those with work experience prior to the first birth who were not currently in school reveals that, for this subgroup, there was little difference by age at first birth in the percent employed at the time of the first interview: 12 percent for those aged 15 to 19 at first birth, 16 percent for those aged 20 to 23, and 23 percent for those aged 24 to 29. Thus, given some work experience prior to motherhood, age at first birth does not seem to relate to employment after the first birth.[1] This suggests that the postponement of the first birth provides the opportunity for employment which, in turn, has consequences for subsequent employment. Women who become pregnant when they are employed may have a special advantage in obtaining work after the first birth (regardless of age), since often they return to the same job. Other mothers with young children may find it especially difficult to look for and obtain a new job. Previously employed women may also be more highly motivated to work soon after their first child than other women, having experienced some of the advantages of paid employment.

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[1] We are considering employment at the time of first interview rather than at a specific age of the child (as in the previous analysis of employment) since current school enrollment relates to the time of the first interview.

[2] Ten women were both currently attending school and employed at the same time of the first interview. These women were excluded from this analysis.

Women who were teenagers when they became mothers were less likely to be employed at the time of the first interview than those who were older, but they were more likely to plan to go to work soon. As shown in Table 6, among those not employed, 61 percent of teenage mothers were planning to go to work within one year, in contrast to 74 percent for those aged 20 to 23 at first birth, and 16 percent for those aged 24 to 29. It may also be noted that women who entered motherhood in their teen years rather than in their twenties were more likely to plan to work at some time in the future (only 3 percent said not at all).

To what extent do these work aspirations predict behavior? Using data from the first and second interview, we can examine work plans at the time of the first interview in relation to employment status at the time of the second interview -- one year later. Only 23 percent of the women who said they were planning to go back to work within a year were in fact employed at the time of the second interview. The younger the woman at first birth, the less likely she was to realize this aspiration: the percentages were 16 for those aged 15 to 19 at first birth, 24 for those aged 20 to 23, and 54 for those aged 24 to 29($p < .05$).

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[1] For a multivariate analysis of the determinants of female employment at 7 months and 19 months after the first birth (including age at first birth), see Presser (1975). This paper also considers the occupations of employed women.

Public Assistance

Only a minority of mothers, as we have seen, were employed soon after their first birth. Teenage mothers were least likely to be working but most likely to be going to school. As we have also seen, teenage mothers were disproportionately unmarried at the time their child was born -- that is, many did not have husbands to help support them or their child. How, then, have they managed to survive economically?

Our data on the public assistance status of households are revealing. Women were asked to specify whether any of their household income came from public assistance or welfare, including aid to dependent children. Over one-fourth (26 percent) of the sample responded that at least some of their household income was from this source. This undoubtedly overstates the percentage of women personally receiving public assistance, but probably not by much.[1]

Age at first birth is inversely related to public assistance status: over half of teenage mothers (55 percent) were in households receiving public assistance at the time of the first interview, in contrast to 17 percent of mothers aged 20 to 23, and 9 percent of mothers aged 24 to 29 ($p < .05$).

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[1] For further discussion and an analysis of the relationship between public assistance and early family formation based on this sample of women, see Presser and Salsberg (forthcoming).

Public assistance appears to enable many women to go to school. It was teenage mothers who were most likely to be enrolled and it was teenage mothers who were disproportionately in public assistance households. Seventy-five percent of the teenage mothers who were going to school were in households receiving public assistance.

Looking at the relationship in the reverse direction, it may be seen in Table 7 that, both for the total sample and for teenage mothers specifically, public assistance status does not differentiate the proportion of women who were home full time: about two-thirds for both groups. It does, however, differentiate between work and school. Of the remaining one-third, school attendance was the more prevalent activity for recipients and employment was more characteristic of nonrecipients.

Motherhood After the First Birth

We have seen that the majority of women soon after their first birth did not work or go to school; they were full-time homemakers supported by their husbands, families, and/or public assistance. Many dropped out of school because they became pregnant with their first child (especially teenagers who were still in high school) and many dropped out of the labor force or never had a chance to enter. The educational aspirations of those not in school was much beyond what we would realistically expect them to achieve, now that they were mothers. Almost all women planned to go (back) to work, and we can expect most will -- although not as soon as they expect to do so. Given these and other alterations in their day-to-day lives, how does the "reality shock" of motherhood affect women's family size desires and subsequent fertility, and are there differences in effect by age at first birth? Data from both the first and second interview are revealing in this regard.

We previously reported the family size desires of women just before they became pregnant with their first child (see Table 2). Comparing those desires with the desires women said they now had (at the time of the first interview, when the first child was between 7 months and 2-1/2 years old), we find that about one-fourth of the women indicated a change. Twenty-one percent reportedly wanted fewer children and only 3 percent wanted more; 67 percent wanted the same number, and 9 percent had no idea at one or both interviews. There was, however, no strong relationship between change in family size desire during this period and age at first birth, even when controlling for the age of the first child.

The reinterview permits us to examine changes in family size desires one year after the first interview and we need not rely on recall for either time period. Less than one-half of the women (48 percent) gave the same response at both interviews. Again, the shift is toward smaller families. Twenty-nine percent of the reinterview sample decreased their family size desire. There was, however, a shift toward larger families among 17 percent of the sample. Although teenage mothers were most likely to change their family size desires during this interval -- both lower and higher -- differences by age at first birth were not substantial.

Between pregnancy and the time of the second interview, however, the absolute *number* of children desired by women declined markedly. Whereas just before women were pregnant with their first birth only 8 percent wanted less than two children (see Table 2), at the second interview 17 percent indicated this preference (Table 8). The two-child family, however, remained the most popular and was especially preferred by women who had their first birth in their late twenties. Those who became mothers in their teens were most likely to prefer very small families (less than two children) and large families (four children or more), and differed notably in the disribution of family size desires from women who were older at first birth. Shifts in family size desires between pregnancy and the second interview thus seem to have had a differential effect by age at first birth.

We have been looking at attitudinal changes, but what about differences in behavior? Is there a difference by age at first birth in subsequent fertility? We can examine this question with regard to the spacing of the second child. By the time of the second interview, the interval since the first birth was at least 19 months for all the women in our study. Twelve percent of the mothers had their second child less than 19 months after their first. Teenage mothers did not differ, however, from women aged 20 to 23: for both, 14 percent had their second child within this interval, but only 7 percent of the women aged 24 to 29 had a second child by this time ($p > .05$).

It is important to note that we have been looking at a relatively short time span since the first birth. The long-term consequences of early motherhood on subsequent fertility may be substantial. We expect that those who began childbearing as teenagers will have larger completed families than older mothers. This may be so not only because they will have had more reproductive time to do so, but because their role options over the reproductive span will be relatively narrow. A third interview of this sample planned for 1976 (two years after the second interview) should be revealing in this regard.

Conclusions and Suggested Research

We have seen that teenage mothers approached motherhood with similar family size desires as women who were older at first birth, but they were less likely to plan the timing of motherhood. Being young, teenage mothers had less time than older mothers to find a suitable husband, to go to school, or to work before their first child was born. Almost all of those who were unmarried wanted to marry, although not necessarily the father of their child. Many teenage mothers indicated they had wanted to go further in school before they became pregnant. These findings suggest that, given more child-free time, some of these women would have accomplished more in terms of marriage and education prior to their first birth. It would also have given them more opportunity to work prior to motherhood. To the extent that marriage, school, and work are socially advantageous to women, and women want to achieve in these roles, our data indicate there are negative social consequences resulting from early motherhood.

The findings support the general view that the onset of childrearing responsibilities has a restricting effect on the role activities of women. Many women dropped out of school or out of the labor force when they became mothers; some never had a chance to work. Most women became full-time homemakers. A minority of mothers were in school or working soon after their child was born, revealing their high level of motivation and/or economic need. Teenage mothers were more likely to be in school than older mothers, but less likely to be employed. They were also more likely to plan to go back to school or to work. As we have seen, however, their work plans were not good predictors of their behavior. Teenage mothers were more likely than women who became mothers in their twenties not to realize their work aspirations a year later.

Between pregnancy and the time of the second interview, the family size desires of mothers changed considerably -- more downward than upward. At the time of the second interview, teenage mothers differed from older mothers in that a substantial proportion wanted no more than one child and a sizeable group wanted four or more. Preference for two and three children was more characteristic of older than younger mothers. The wider dispersion of family size desires among teenage mothers suggests that their ability to cope with children, given their current life style, may be more variable.

This paper has focused on a selected aspect of the social consequences of teenage childbearing -- its relationship to the role aspirations and behavior of women. We have also focused on a limited time span after the first birth. There is a need for further research that examines the long-term consequences of teenage childbearing, comparing teenage mothers not only with older mothers, but with women of similar age who have not (yet) had children.

Although we have been looking at some of the consequences of teenage childbearing, the consequences of teenage pregnancy followed by abortion need further study. Teenagers who abort are generally postponing their first birth: how does this affect their subsequent role behavior? And what about women who have a child but give it up for adoption: how do they compare with unmarried mothers who keep their child? It may also be noted that, with the liberalization of abortion laws, unmarried women who choose to have a child may be becoming an increasingly selective group. They may be women who have especially low educational and occupational aspirations.

Role aspirations may reflect motivation, but they also reflect the actual opportunity structure for achievement. We need to explore the interrelationships between aspirations and structural opportunities with better measures than are currently available. How does the restriction of opportunities outside the family affect women's attitudes toward motherhood?

A related issue of critical importance is the unmet need for child care among women with young children. Whatever the reasons for early childbearing, the consequences for women's roles may be minimized by providing good child care facilities. Our study indicates that mothers who are going to school or working depend primarily on their family and babysitters for child care (most of the children are too young for day care centers). To what extent are women not currently in school or working prevented from doing so because they cannot satisfactorily arrange for child care or cannot afford it?

We also need to study how women are affected by the experience of child-rearing, and how this may vary by the age of mother. Children may have quite a socializing effect on attitudes toward motherhood and other roles.

A final plea is for more studies on fatherhood, including unmarried fatherhood. The consequences of early fatherhood for men, women, and children need to be researched.

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Table 1. Percent of New York City Mothers Who by the Time of Their First Birth Had Graduated High School, Worked, and Were Married, Separately According to Age at First Birth

	Total (N=408)	Age at First Birth		
		15-19 (N=129)	20-23 (N=154)	24-29 (N=125)
Percent who were married at time of first birth	72	39	84	92
Percent who graduated high school before first birth	72	33	87	94
Percent who worked before first birth[1]	74	39	84	98

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[1] Only jobs of at least six months duration are included.

Table 2. Percent Distribution of New York City Mothers By Family Size Desires Just Before Pregnant With First Child According to Age at First Birth

Family Size Desires Just Before Pregnant With First Child	Total	Age at First Birth		
		15-19	20-23	24-29
0,1	8	10	8	5
2	38	38	34	43
3	24	20	25	26
4	15	12	18	15
5+	8	12	7	5
No Idea	7	8	8	6
Total Percent (No. of cases)	100 (408)	100 (129)	100 (154)	100 (125)
Mean Number of Children Desired[1] (No. of cases)	2.8 (377)	2.9 (118)	2.9 (142)	2.7 (117)

$x^2 = 10.48$; $p > .05$[1]

[1] Excludes women who had no idea.

Table 3. Percent Distribution of New York City Mothers Aged 15 to 19 at Time of First Birth By Educational Aspirations Just Before First Birth According to Current School Attendance Status and Whether or Not Graduated High School

Current School Attendance Status and Educational Aspirations Just Before First Birth	Total	Whether or Not High School Graduate	
		Yes	No
Not currently attending school			
Went as far as wanted	21	29	17
Wanted to go further	54	51	56
Currently attending school	25	20	27
Total Percent (No. of cases)	100 (127)	100 (41)	100 (86)

$x^2 = 2.53$; $p > .05$

Table 4. Percent Distribution of New York City Mothers Not Currently Attending School By Level of Educational Aspirations Just Before First Birth According to Age at First Birth

Level of Educational Aspirations	Total	Age at First Birth		
		15-19	20-23	24-29
12 grades[1]	21	42	8	8
13-15 grades	25	22	30	25
16 or more grades	54	36	62	67
Total Percent (No. of cases)	100 (181)	100 (69)	100 (61)	100 (51)

$x^2 = 30.64; p < .05$

[1] Includes one case of less than 12 grades.

Table 5. Percent Distribution of New York City Mothers Not Currently Attending School By Whether and When They Plan to Go Back to School According to Educational Aspirations Just Before First Birth and Age at First Birth

Age at First Birth and Whether/When Plan to Go Back To School	Total	Educational Aspirations Just Before First Birth: Went as far as wanted	Educational Aspirations Just Before First Birth: Wanted to go further
15-19			
Go back within 5 years	67	39	78
Go back after 5 years	4	7	3
Never go back	29	54	19
Total Percent	100	100	100
(No. of cases)	(96)	(28)	(68)
$\chi^2 = 13.36; p < .05$			
20-23			
Go back within 5 years	40	29	55
Go back after 5 years	10	8	12
Never go back	50	63	33
Total Percent	100	100	100
(No. of cases)	(143)	(83)	(60)
$\chi^2 = 12.26, p < .05$			
24-29			
Go back within 5 years	40	28	56
Go back after 5 years	16	9	26
Never go back	44	63	18
Total Percent	100	100	100
(No. of cases)	(117)	(67)	(50)

$x^2 = 23.69; p < .05$

Table 6. Percent Distribution of New York City Mothers Not Employed at Time of First Interview By When Planning to Go to Work According to Age at First Birth

When planning to Work	Total	Age at First Birth 15-19	20-23	24-29
Less than 1 year	35	61	24	16
1 to 2 years	16	18	20	9
3 to 4 years	12	10	11	16
5 years or more	26	8	32	41
Not at all	11	3	13	18
Total Percent (No. of cases)	100 (338)	100 (115)	100 (128)	100 (95)

$x^2 = 77.32; p < .05$

Table 7. Percent Distribution of New York City Mothers By Public Assistance Status at First Interview According to Activity Last Week, for Total Sample and For Women Aged 15 to 19 at Time of First Birth

Activity Last Week	Total	Public Assistance Status	
		Recipients	Non-Recipients
Total Sample			
Employed[1]	19	8	23
In School	9	22	4
Home Full-Time	72	69	73
Total Percent	100	100	100
(No. of cases)	(407)	(107)	(300)
$\chi^2 = 40.98$, $p < .05$			
Aged 15 to 19 at First Birth			
Employed[2]	15	9	23
In School	19	26	10
Home Full-Time	66	65	67
Total Percent	100	100	100
(No. of cases)	(128)	(70)	(58)
$x^2 = 8.10$; $p < .05$			

[1] Includes 10 women who were both employed and going to school.

[2] Includes 5 women who were both employed and going to school.

Table 8. Percent Distribution of New York City Mothers By Family Size Desires at Second Interview According to Age at First Birth: Reinterview Sample

Family Size Desires at Second Interview	Total	Age at First Birth		
		15-19	20-23	24-29
0,1	17	24	17	9
2	48	36	47	60
3	21	17	26	19
4+	10	17	6	9
No Idea	4	6	4	3
Total Percent (No. of cases)	100 (358)	100 (111)	100 (132)	100 (115)
Mean Number of Children Desired[1] (No. of cases)	2.2 (343)	2.2 (104)	2.2 (128)	2.3 (112)

$x^2 = 23.56; p < .05^1$

[1] Excludes women who had no idea.

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F. State Medicaid Programs as Sources of Health Care to Children in Low Income Families

"Medicaid" is the name commonly given to the medical assistance program provided for in Title XIX of the Social Security Act. This Title became law in the Social Security Amendments of 1965 and became effective on January 1, 1966. Under Title XIX the federal government provides matching funds to States "for the purpose of enabling each State, as far as practicable under the conditions in such State, to furnish (1) medical assistance on behalf of families with dependent children and of aged, blind, and permanently and totally disabled individuals, whose income and resources are insufficient to meet the costs of necessary medical services, and (2) rehabilitation and other services to help such families and individuals attain or retain capability for independence or self-care. . . ." 1/ The federal share of matching funds to States ranges from 50 to 83 percent under a formula which provides that the federal share rises as the State's per capita income declines in relation to the national per capita income.

Within only very broad limitations (e.g., the State program must provide some institutional and some non-institutional care, and recipients of public assistance programs such as Aid to Families with Dependent Children /AFDC/ must be eligible for such care as is provided) the State determines for its own program what groups will be eligible for care and what kinds of care are to be included. Thus, although Medicaid was established by Congress and is available to all the states, each state must decide whether it is to have a Medicaid program and what kind of program it is to be. As a result, there are very different Medicaid programs to be found among the states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. This paper will be concerned only with Medicaid programs as they relate to children in 48 states2/ and the District of Columbia.

Medicaid is by far the largest public program of medical care for children. According to estimates for fiscal year 1972, "public assistance (vendor medical payments)" which consists almost exclusively of Medicaid, accounted for 39.7 percent of all public funds expended for personal health care services to children under 19 years of age. 3/ Estimates for other public programs are: Defense Department hospital and medical care (including military dependents), 23.8 percent; general hospital and medical care, 13.1 percent, maternal and child health services, 10.6 percent; school health, 9.2 percent; Office of Economic Opportunity, 2.5 percent; and medical vocational rehabilitation, 1.1 percent. Since these other programs are greatly limited as to types of persons eligible, kinds of needs met and services provided, or geographic areas in which they are available, it is

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1/ House of Representatives Document No. 266. Compilation of the Social Security Laws. Including the Social Security Act, as amended, and related enactments through January 2, 1968. USGPO, Washington: 1968. Sec. 1901, page 333.

2/ In fiscal year 1972 there were no Medicaid programs in Alaska and Arizona.

3/ Cooper, Barbara S. and Nancy L. Worthington, "Age Differences in Medical Care Spending, Fiscal Year 1972." Social Security Bulletin, May 1973, page 8.

clear that Medicaid is the main source of general medical care for children in families which cannot afford to pay directly for health services or for health care insurance. This study seeks to determine, based on available data, how state Medicaid programs compare in terms of the adequacy of health care they provide for needy children.

Statistics available for fiscal year 1972 from the National Center for Social Statistics, Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare, together with data from the Bureau of the Census, permit the comparative analysis of most State Medicaid programs in terms of the amount, kinds, and costs of care they are providing to needy children. These data provide at least tentative answers to crucial questions such as these:

> To what extent are the child populations of the various States receiving health services under Medicaid?
>
> In particular, to what extent are children in the low-income population of States receiving Medicaid services?
>
> To what extent are low-income children other than those receiving AFDC being provided health care under State Medicaid programs?
>
> To what extent is Medicaid reaching and providing care to the AFDC children themselves?
>
> How much medical service are the programs furnishing to children?
>
> To what extent are programs providing a broad range of services, and what limitations exist?

Each State program has many complex ramifications with regard to methods of administration and certification of eligibility, types of individuals eligible, levels of payment for specific services, limitations on kinds, extent, and quantity of services, numbers and types of health care providers who participate, methods of reimbursement, etc., all of which affect the health care reaching children. This study cannot delve into all these matters; it can only observe the general indications of the cumulative effects of all these factors as they appear in the summary statistics describing the children receiving services and the kinds, amounts, and costs of services they receive.

This analysis will be designed in such a way as to test the relative adequacy of Medicaid programs in the various States, in respect to the services they provide to dependent children. To give focus to this analysis, three groups of States, arbitrarily classified according to "need" for child health services, will be compared. "Need" in this analysis will be defined in terms of the concept of "high risk of child health problems."

The counties of the nation have been classified as to whether or not they are "high risk." The "high risk" county is one meeting all three of the following criteria:

1. The rate of families classed as "low income" (according to the Office of Management and Budget definition) exceeds the national rate by 25 percent or more. (1970 Census)

2. The proportion of women 25 years of age or older who completed 8 years or less of school is above the national proportion. (1970 Census)

3. The infant mortality rate, averaged for the years 1964-1968, places the county among the top 40 percent of counties in this respect. (National Center for Health Statistics data)

To infer that counties meeting these criteria are at "high risk of child health problems" is indeed arbitrary and not directly supportable by any data compiled to date. However, it would seem that such counties are afflicted with a special set of problems, and unusual needs for good child health services may well be implied.

There are 952 counties which meet the criteria, leaving 2182 which do not. Figure 1 shows the geographic locations of the 952 counties.4/ The "high risk" counties tend to be concentrated most heavily in the coastal plain of the Deep South, extending all the way from southern Maryland to eastern Texas. This region is the old cotton-tobacco plantation belt which to this day has a relatively heavy concentration of Negro population. There is a smaller concentration of "high risk" counties in the Southwest, extending from western Texas to Arizona and into southern Colorado--areas having heavy concentrations of Mexican-American and American Indian populations. There is a thinner scattering of "high risk" counties throughout the Upper South and Border States. Other "high risk" counties are very thinly scattered through the rest of the country, although there are 12 states with no "high risk" counties.

In order to relate Medicaid programs for children to the "high risk" factor, the proportion of each State's population residing in "high risk" counties was determined. Seven states were found to have 44.9 percent or more of their population living in such counties in 1970:

Mississippi.....	90.7 percent
Louisiana.......	68.3 percent
Alabama.........	63.6 percent
Georgia.........	56.2 percent
South Carolina..	54.8 percent
Tennessee.......	54.4 percent
North Carolina..	44.9 percent

4/ Tabulations prepared by the Evaluation Branch, CHS, HSMHA.

These 7 states form a contiguous block of states in the Southeast (Figure 2). They will be referred to in this analysis as the "high risk" states. Another 10 states had from 19.6 to 31.3 percent of their populations residing in "high risk" counties in 1970:

New Mexico.....	31.3 percent
Arkansas.......	30.4 percent
Virginia.......	30.0 percent
Kentucky.......	27.8 percent
Maryland.......	27.3 percent
West Virginia..	25.8 percent
Florida........	25.3 percent
Arizona........	21.9 percent
Missouri.......	21.8 percent
Texas..........	19.6 percent

These 10 states are designated as "medium risk" states for purposes of this analysis. These happen to be the states which immediately surround the "high risk" states, together with the adjoining states of Maryland, West Virginia, New Mexico, and Arizona. Among the other 33 states and the District of Columbia only Oklahoma and Montana had as many as 11.6 percent of their populations residing in "high risk" counties in 1970; all the rest had lower percentages or none. These will be referred to as "low risk" states; they form a contiguous area except for Alaska, Hawaii, and the District of Columbia.

On the assumption, then, that the "high risk states" represent the area of greatest need for Medicaid services for children, and that the "medium risk states" compose the area of next greatest need, the following factors will be investigated for the three areas:

1. The proportion of the total child populations that receive Medicaid services.

2. The proportion of the low-income child population receiving Medicaid services.

3. The proportion of the children of low-income families that receive Medicaid services who are not receiving AFDC.

4. The proportion of AFDC child recipients themselves who receive Medicaid services.

5. The average expenditure for Medicaid services to children.

6. The range and variety of Medicaid services received by children.

Sources of data. The principal sources of data for this analysis were the publications, Numbers of Recipients and Amounts of Payments under Medicaid, 1972 and Medicaid Recipient Characteristics and Units of Selected Medical Services, 1972, a/ which are reports on utilization of Medicaid in the states during the fiscal year. The former report contains unduplicated counts of persons receiving Medicaid services in each state, by eligibility factor, broad age group, sex, whether public assistance recipients or not, and type of service received. Total expenditures for Medicaid services during the year are also reported in the same breakdowns. Data are included for all states with Medicaid programs except Alabama, Massachusetts, and Virginia, which did not submit reports in time for inclusion. NCSS provided a copy of the belated report for Virginia, but data for Alabama and Massachusetts continue to be missing. The latter report contains quantitative measures of some types of care provided in fiscal year 1972, such as number of physicians visits by place of visit, numbers of drug prescriptions, and hospital episodes by length of stay. Data on the average number of AFDC child recipients per month, by state, in fiscal year 1972 (as reported in the monthly Public Assistance Statistics,--see Table 3-1) were also provided by NCSS. Denominator data on total child populations and children in low income families, by state, were derived from Bureau of the Census publications, citations for which appear in footnotes to Table 1.

Findings. The findings are summarized in Table 1. The table gives parameters for the "high, medium, and low risk areas" as follows: the rate of children receiving Medicaid services per 1,000 children under 21 in the population; the rate per 100 children under 18 in low income families; the percent of Medicaid recipient children who were also AFDC recipients; the rate of AFDC children receiving Medicaid per 100 AFDC recipient children; and the average expenditure for Medicaid per child in low income families and per child receiving Medicaid services.

In each case of the rates and averages, differences are found among the "high, medium, and low risk areas," with the "low risk area" providing the most services to the highest proportion of children, and at greatest average costs. In each instance the rate or average for the "medium risk" areas is intermediate between the "high and low risk" areas. However, each of these sets of parameters warrants some special discussion.

Impact of Medicaid on the total child population. This factor was measured in terms of the Medicaid recipient rate, which was computed by dividing the unduplicated number of dependent children under 21 years of age receiving Medicaid services in fiscal year 1972 by the Bureau of the Census provisional estimate of children under 21 in each state on July 1, 1972. (Data for a mid-year point, i.e., January 1, 1972, would have been preferable, but such estimates are not available, and it is quite unlikely that any of these populations could have changed sufficiently between January 1 and July 1 to have any marked effect upon the rates.)

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a/ National Center for Social Statistics, SRS, USDHEW.

In the "high risk area" only 56 of every 1,000 children received Medicaid in 1972; in the "medium risk area" the proportion was one-fifth higher--66 per 1,000; in the "low risk area" the proportion of children receiving Medicaid was over twice as high as in the "high risk area"--114 per 1,000. Stated another way, one in every 18 children received Medicaid in the "high risk area," one in every 15 children received Medicaid in the "medium risk area," and one in every 9 children received it in the "low risk area."

The comparison of states in terms of the Medicaid recipient rate is displayed in Figure F3, which shows that the highest rates of Medicaid utilization tend to be found in the Northeast. The north central states east of the Dakotas tend to have average rates. The lowest utilization rates are generally found through the South but also in the Mountain States and the Dakotas.

Medicaid utilization among low income child populations. Both the need and the eligibility for Medicaid services are expected to be confined to the low income populations of the states. However, the program definitions of need and eligibility vary considerably among the states. In order to gauge fairly how well state Medicaid programs are reaching low income populations, it is necessary to use a common definition of "low income," such as the definition used by the Bureau of the Census. Therefore rates were computed for states and areas which related Medicaid recipient children to the total number of children in low income families as reported by the Census Bureau.

The most desirable data to use as denominators for these rates would have been the population of children under 21 years of age in low income families on January 1, 1972. However, no such data were found to have been published. The published data that are closest to those desired in terms of time reference and age grouping are for "related children under 18 years" in families with "income less than poverty level" in 1969, according to the 1970 Census. It was judged that these data are quite good enough to use as denominators for measuring relative differences among states in the degree to which Medicaid reaches low-income children. As far as the time reference is concerned, it is not likely that there were sizable relative changes among the states in the size of this population between April 1970 and 1972 fiscal year. As far as the age grouping is concerned, there is evidence that the loss from the denominator of the children who were 18, 19, or 20 years of age was not serious, as probably very few of the dependent children receiving Medicaid services were this old.6/ Therefore the measure derived, i.e., the ratio of Medicaid child recipients in fiscal year 1972 to the number of children under 18 in low income families in 1970, should be a good indicator of the relative access of low income children to Medicaid services.

6/ Among persons under 21 in families in 1970, 11.7 percent were 18, 19, or 20 years of age. In poverty families the figure was 8.1 percent. But among AFDC recipient children, who make up the great majority of Medicaid recipient children, only 2.4 percent were 18, 19, or 20, according to the 1973 AFDC Study. References: (1) U.S. Bureau of the Census, Census of Population: 1970. Subject Reports. Final Report PC (2)-9A. Low-Income Population. USGPO, Washington, D.C. 1973. Table 8. (2) National Center for Social Statistics, Social and Rehabilitation Service, USDHEW. Findings of the 1973 AFDC Study. Part I. Demographic and Program Characteristics. NCSS Report AFDC-1(73) June 1974. Table 21.

State variations in the ratio of Medicaid child recipients to children in low income families were even greater than those relating to the overall Medicaid recipient rate for children. It ranged from a low of 14 in Arkansas and North Carolina to a high of 170 in California. There were, in fact, 13 states in which the number of Medicaid child recipients in fiscal year 1972 exceeded the number of related children under 18 in low-income families in 1970.7/ As Figure F4 shows, access of low income children to Medicaid tends to be quite low through most of the South and the northern Mountain States, together with Nebraska and the Dakotas. Access is relatively high through the Middle West and the Pacific States, and especially high in the Northeast.

The access ratio was very low for the "high risk area" as a whole--24 per 100. It was considerably higher in the "medium risk area"--39 per 100. In the remainder of the nation--the "low risk area"--the ratio was 118 per 100, nearly 5 times the ratio in the "high risk area." Thus, access by low income children to Medicaid does indeed appear to be by far the lowest in those areas of the country which by the "risk criteria" may be deemed to be most in need of such services.

Medicaid services to children other than AFDC recipients. States may limit child recipients of Medicaid to those who are also receiving assistance payments under AFDC, and many states completely or substantially do so. Ten states in fiscal year 1972 gave no Medicaid services other than to AFDC children, and in 12 other states only 5 percent or less of the child recipients of Medicaid were outside the AFDC program. Nationwide only 12 percent of the Medicaid child recipients were not on AFDC.

In the "high risk area" extremely few (2.7 percent) of the child recipients of Medicaid were outside AFDC. There were considerably more in the "medium risk area," 12.5 percent, but this was almost the same as the proportion of non-AFDC child recipients in the "low risk area," which was 12.6 percent. Figure F5 shows that there was wide variation among states in each region in this respect. There were only 7 states, together with the District of Columbia, in which more than 20 percent of the Medicaid children were outside the AFDC program.

Access of AFDC recipient children to Medicaid. In order to determine access of AFDC children to Medicaid, a rate was computed for each state and area by dividing the number of children receiving Medicaid services by the average monthly number of AFDC child recipients during fiscal year 1972. The latter was deemed to be the best denominator available for such a rate, since it represents the person-years at risk of receiving services. The rate can, however, exceed 100 percent since the annual total of different children at risk at any time during the year exceeds the average monthly number, because of the turnover of families in the AFDC program.

7/ Among various possible explanations for this, two are believed to be most important: (1) States may, and often do, set the maximum income level for eligibility for Medicaid somewhat higher than the maximum cut-off point for "poverty" or "low income" as it is set for statistical measurement purposes. (2) The census concept of poverty or low income is based on total income for the family or individual in the previous year. Medicaid eligibility is based on current income. The total number of persons or families who are "low income" at some time during the year, and hence eligible for Medicaid for part of the year, exceeds the number of persons or families [illegible] "low income" based on total income for the year.

Access was found to be particularly low for AFDC children in the "high risk area," where the total rate was 57.4 percent and no state had a rate higher than 75 percent. In general, access was considerably higher for AFDC children in the "medium risk area," 74.5 percent overall. Access was still much higher in the "low risk area"--101.1 percent of the average monthly number of recipient children. But there was wide variation in the "low risk area," with several states having quite low access measures. (FigureF6)

"Access measures" or "recipient rates" provide one indication of the quality or effectiveness of a public social program such as Medicaid. They help to answer the question whether the program is reaching the people for who it was presumably intended, i.e., the question of the extensiveness of the program. Another basic question about the program concerns the services which the program's beneficiaries actually received. It would be especially valuable to know the quality of services provided, but there is as yet no way of measuring that. However, two useful measures of the services are available: (1) the amounts spent to purchase or provide the services and (2) the counts of the kinds and numbers of services which were provided.

Expenditures for Medicaid services. The average expenditure (federal and state sources combined) for Medicaid services for children, per child receiving one or more services, was computed for each state and area for fiscal year 1972. It is assumed that this average is a general indication of the relative value of services received by children, reflecting the kind, volume, and/or quality of the services received.

In this respect, too, the usual regional differentials were found. (FigureF7) In the "high risk" area expenditures averaged $87.30 per child receiving Medicaid services; in the "medium risk" area the average was $112.46 per child; and in the "low risk" area the average was $162.41 per child--nearly twice as high as in the "high risk" area.

A possible reason for these differentials is that costs for services are lower in the poorer states. It is possible that recipients in the "high risk" states received just as many and just as good services as in the "low risk" states, but the agencies simply had to pay less for them. While there is no gauge of the relative quality of services provided by the various states, there is some information on the quantity of services and the range of types of services provided by the respective states.

Dental care is one of the optional types of care provided through state Medicaid programs. Many states provide little or no dental care through Medicaid, especially in the "high and medium risk" areas: 8/

States by percent of Medicaid children receiving dental care	"High Risk" Area	"Medium Risk" Area	"Low Risk" Area
Total reporting states.........	6	9	32
Less than 5 percent...........	3	3	10
5 to 19 percent...............	3	2	4
20 percent or more...........	0	4	18

8/ Source: NCSS Report B-4 (FY 72), Table 13.

Thus, while there were some "low risk" states in which virtually no dental care was given (especially among the Mountain States), most states in the "low risk" area and nearly half of the states in the "medium risk" area gave dental services to 20 percent or more of the child recipients, whereas in the "high risk" area no states gave dental care to this many. Of all child Medicaid recipients in the "low risk" area, 20 percent received dental care during the year, as compared with 11 percent of the child recipients in the "medium risk" area and only 4 percent in the "high risk" area.

It is possible from available data to make crude comparisons among relative costs in the states of certain presumably comparable services, i.e., days of inpatient hospital care and physicians' visits.

Days of hospital care provided to dependent children in fiscal year 1972 were reported by 5 of the 7 "high risk" states, 7 of the 9 "medium risk" states, and 27 of the 33 "low risk" states with Medicaid programs. The weighted averages of hospital per diem costs were $62.37 in the "high risk" states, $77.63 in the "medium risk" states, and $95.41 in the "low risk" states. Thus, on the average, hospital care was 24.5 percent more costly in the "medium" than in the "high risk" states, and 53.0 percent more expensive in the "low risk" than in the "high risk" states.

Numbers of physician visits involving dependent children in fiscal year 1972 were reported by 4 of the 7 "high risk" states, 7 of the 9 "medium risk" states, and 30 of the 33 "low risk" states with Medicaid programs. On the average, there were 2.98 physician visits reported per child on Medicaid in the four "high risk" states, 3.04 physician visits per child in the 7 "medium risk" states, and only 2.72 visits per child in the 30 "low risk" states. Thus, children on Medicaid in the "high risk" states received more physician visits than was true of children on Medicaid in the "low risk" states, but this may result from the greater restrictiveness of the program in the "high risk" area and may indicate that they tended to be sicker when they went for services.

In order to obtain a rough estimate of relative costs of physician visits in the three areas, expenditures for "physicians' services," "outpatient hospital services," and "clinic services" were summed and the total divided by the number of physician visits reported for each area. This procedure yielded the following average costs per physician visit: $12.88 in the "high risk" area, $13.64 in the "medium risk" area, and $21.62 in the "low risk" area. If these comparisons are valid, then a physician's service costs 5.7 percent more in the "medium risk" than in the "high risk" area, and 67.9 percent more in the "low risk" than in the "high risk" area.

The average expenditure per child recipient of Medicaid is 86.0 percent higher in the "low risk area" than in the "high risk area" ($162.41 as compared with $87.30). Since a day of hospital care cost on the average

53.0 percent more in the "low risk" than in the "high risk area," and a physician's visit averaged 67.9 percent more, the relative costliness of these two major forms of service account for part of the overall cost difference between the "low risk" and the "high risk" areas. However, they do not account for all of the overall difference; some of the difference must therefore be accounted for by other factors, suggesting the likelihood that children who received Medicaid in the "low risk area" received more service, on the average, than children who received Medicaid services in the "high risk area."

Expenditures related to total low-income children. Table F1 gives for each area the average Medicaid expenditure per child in low income families. This figure is in reality simply the product of the percentage of low-income children on Medicaid (stated as a proportion) and the average expenditure under the program per child receiving Medicaid services. The measure is thus an index which simultaneously reflects the extensiveness of the program (its degree of penetration into the low income child population) and its intensiveness (the level of financial resources devoted to services to the child).

Averages for the respective areas are $21.02 for the "high risk" area, $44.07 for the "medium risk" area, and $191.59 for the "low risk" area. Thus, by this measure, the "medium risk" area gets a score over twice as high as the "high risk" area, and the "low risk" area gets a score over nine times as high. (Figure F8)

Conclusions and discussion.

The data generally indicate that "social problem areas" tend to have relatively weak Medicaid programs for children. "Social problem areas" were defined for purposes of this analysis as states having relatively high proportions of their populations in counties where (1) poverty is high, (2) a high proportion of women have little education, and (3) infant mortality is high. States were classified as "high risk" (44 percent or more of their populations were in such counties), "medium risk" (between 19 and 32 percent of their populations were in such counties), and "low risk" (less than 12 percent of their populations were in such counties).

It was found that available data indicate that Medicaid programs for children tend to be best in the "low risk" areas, poorer in the "medium risk" areas, and poorest in the "high risk" areas in terms of the following factors:

1. The proportion of all children receiving Medicaid services.
2. The proportion of low income children receiving Medicaid services.
3. The proportion of Medicaid recipient children who are "medically indigent" (outside the program of Aid to Families with Dependent Children--AFDC).

4. The proportion of AFDC children who receive Medicaid services.

5. Average expenditure for Medicaid services per child receiving such services.

6. Inclusion of dental care in covered services.

The findings imply then, that there are serious deficiencies in Medicaid programs for children in the indicated group of states.

However, in considering the cited problems, there are mitigating factors which should be taken into account. On some of these factors there are data available, and some call for further study to develop appropriate data:

1. The data analyzed were for one short period of time--fiscal year 1972--which is the latest period for which data are currently available. Some attention should be paid to trends in the factors under study, to determine whether conditions are changing.

   It is not as easy as it might be to study trends, because each year there is a different group of states whose data are missing from the published reports, and comparisons can only be made for the particular set of states which are included in both periods being compared. There are 44 states which reported Medicaid expenditures for care of dependent children both in calendar year 1969 and fiscal year 1972, including 4 "high risk" states and 9 "medium risk" states. The 4 "high risk" states accounted for 2.1 percent of the 44-state total in calendar year 1969 and 2.8 percent of the total in fiscal year 1972. The 9 "medium risk" states accounted for 7.5 percent of the total in 1969 and 10.7 percent in 1972. 9/

   Similarly, we can make comparisons between calendar year 1970 and fiscal year 1972. There were 46 states reporting for both of these periods, including 5 "high risk" states and 9 "medium risk" states. The 5 "high risk" states accounted for 2.9 percent of total expenditures for children in calendar year 1970 and 3.7 percent in fiscal year 1972. The 9 "medium risk" states accounted for 9.3 percent of the 46-state total in 1970 and 10.6 percent of the total in 1972. 10/

   Thus there is evidence that the relative size of the Medicaid programs for children in the "high risk" and "medium risk" areas is improving over time. The rate of such change, and the prospects for further improvement in the ensuing years, need to be considered as plans are made to meet program deficiencies.

9/ Sources: NCSS Report B-4(CY69), Table 3, and NCSS Report B-4(FY72), Table 13

10/ Sources: NCSS Report B-4(CY70), Table 3, and NCSS Report B-4(FY72), Table 13

2. Before states are faulted for the shortcomings of their social programs, some consideration should be given to the relative effort they are actually devoting to them. States differ greatly in terms of the wealth and income available for taxation, and in some states relatively high tax rates will still yield insufficient funds for program support.

3. The availability of health care resources--skilled practitioners and facilities--varies from place to place, and a low utilization rate may reflect the difficulty clients have in gaining access to services, rather than the failure of a program to pay for services.

4. There are cultural differences from place to place which influence whether people seek the care which may be available under existing programs. People differ by reason of their experiences, background, and education, in their attitudes toward health care and the circumstances under which they will seek it. Thus, a low utilization rate may reflect these attitudes rather than the availability of care. Conversely, there may be tendencies in some groups to overutilize health care resources which are available. In such instances there may be needs for intensive health education programs either in addition to or instead of the expansion of health care resources.

   The utilization of health care services in Medicaid needs to be studied in relation to utilization in the total population. However, this will be a difficult undertaking, particularly for two reasons: (1) There may well be greater need for health services in the Medicaid-eligible group. To assess this would require an intensive investigation of health problems of Medicaid-eligible persons as compared with others. (2) It is virtually impossible to identify the Medicaid-eligible population in those states which provide Medicaid to the medically indigent.

5. It is possible that in some areas some poor people still receive certain medical services free of charge and for this reason require fewer services under Medicaid.

6. There may be some state or local, public or private, charity health care programs which partly make up for the deficiencies in health services provided through Medicaid.

MARILYN MARCOSSON
Executive Director

American Parents Committee, Inc.
1346 Connecticut Ave., N.W. # 310
Washington, D.C. 20036 (202) 785-3169

Table F.1 Medicaid rates for "high risk," "medium risk," and "low risk" states

	Total, Reporting states 1/	"High risk" states	"Medium risk" states	"Low risk" states
Dependent children receiving Medicaid services in fiscal year 1972:				
Per 1,000 children under 21 on 7/1/72---------------------	97	56	66	114
Per 100 children under 18 in low-income families, 1970--	76	24	39	118
AFDC child recipients who received Medicaid services in fiscal year 1972:				
As percent of Medicaid recipient children------------------	88.1	97.3	87.5	87.4
Per 100 AFDC recipient children (monthly average)--------------	91.2	57.4	74.3	101.1
Medicaid payments for dependent children in fiscal year 1972:				
Average per child receiving Medicaid services--------------	$150.14	$87.30	$112.46	$162.41
Average per child under 18 in low-income families in 1970----	$113.89	$21.02	$ 44.07	$191.59

1/ Data are missing for Alaska and Arizona (no Medicaid programs in 1972) and for Alabama and Massachusetts (reports not submitted).

SOURCE OF DATA:

(1) U.S. Bureau of the Census, Current Population Reports: Population Estimates and Projections. Series P-25, No. 500, May 1973. U.S. Government Printing Office, Washington, D. C. Table 1.

(2) U.S. Bureau of the Census, Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C1 United States Summary. U.S. Government Printing Office, Washington, D. C. 1972. Table 182.

(3) Average for the 12-month period of figures published in the monthly Public Assistance Statistics, NCSS Report A-2. National Center for Social Statistics, Social and Rehabilitation Service, U.S. Department of Health, Education and Welfare, Washington, D.C.

(4) Number of Recipients and Amounts of Payments Under Medicaid, 1972. NCSS Report B-4 (CY72). National Center for Social Statistics, Social and Rehabilitation Service, U.S. Department of Health, Education and Welfare, Washington, D.C., May 23, 1974. Tables 6, 13 and 24.

(5) Data for Virginia obtained from the National Center for Social Statistics.

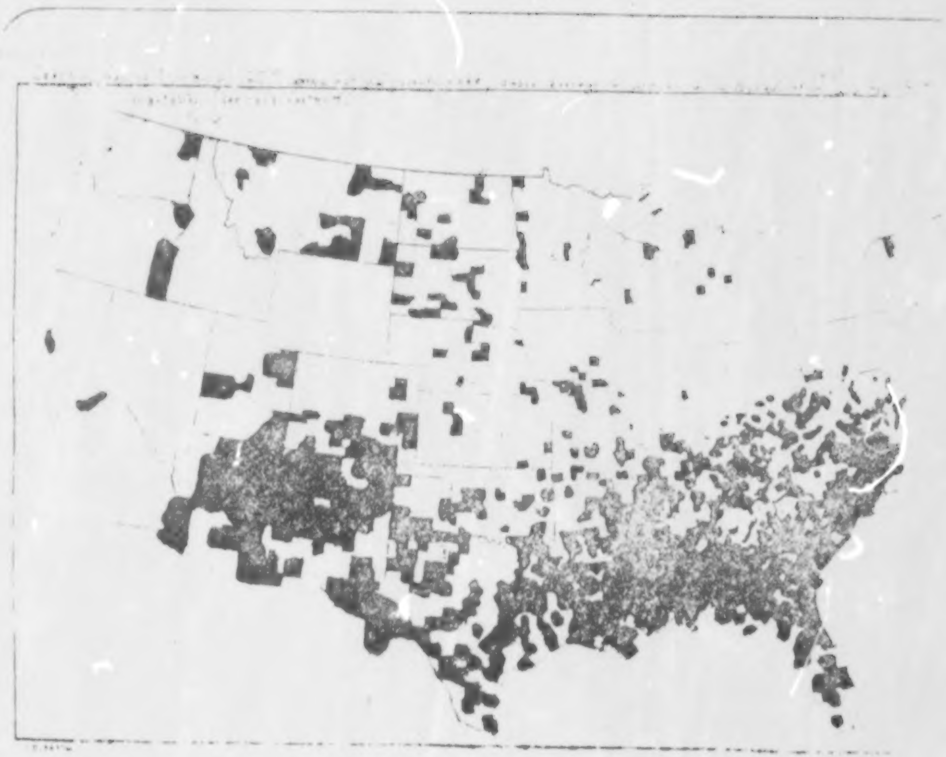
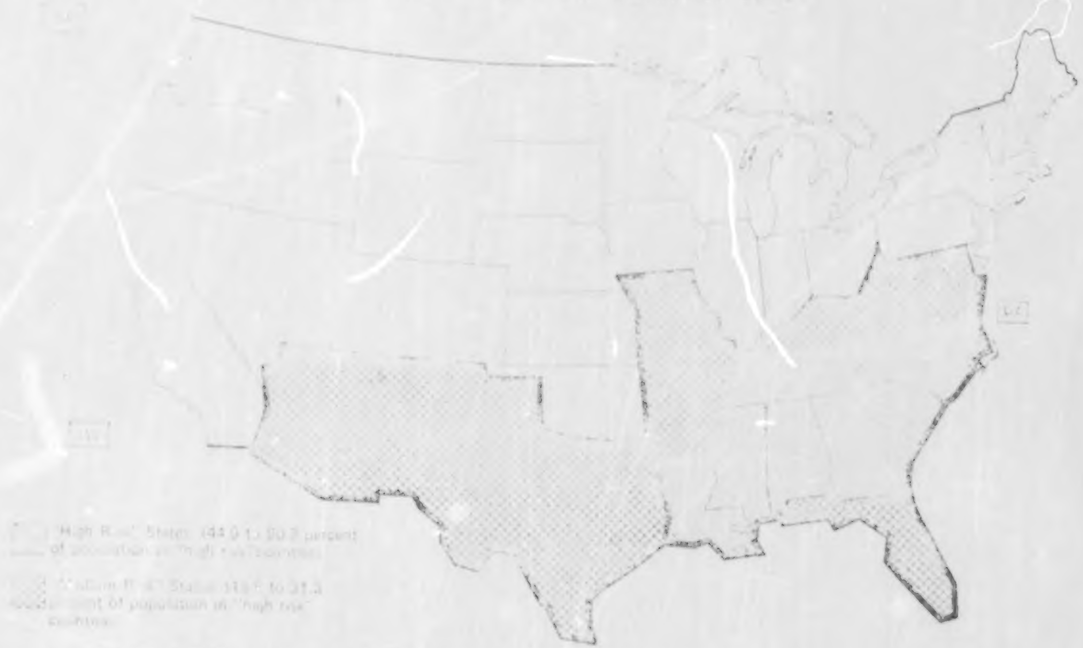


FIGURE [illegible]

DELINEATION OF "HIGH RISK" AND "MEDIUM RISK" STATES



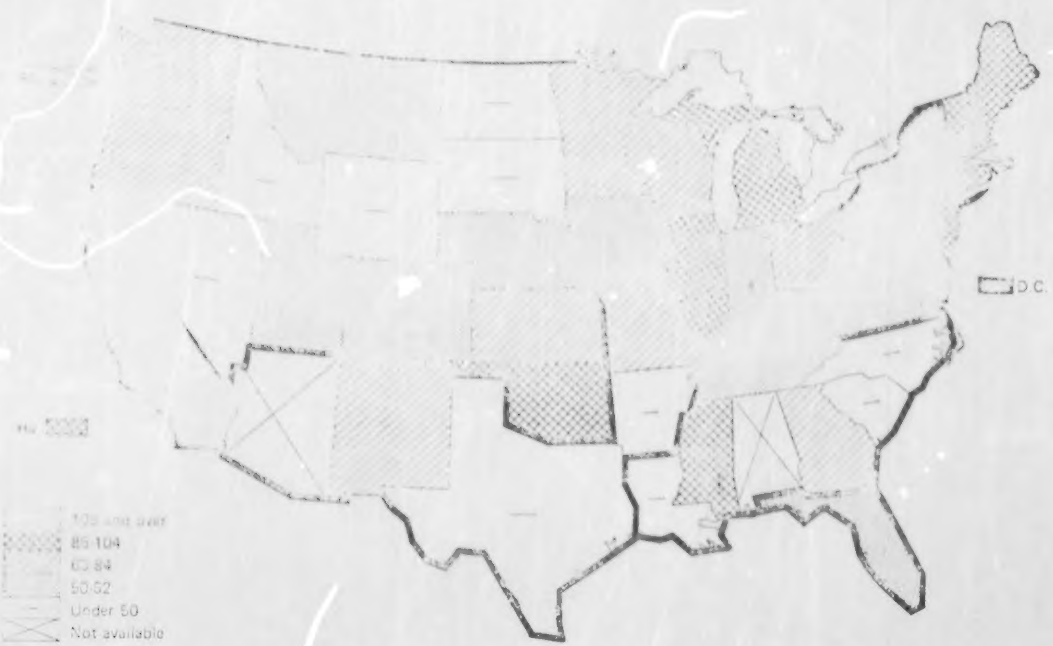
☐ "High Risk" States (44.0 to 90.2 percent of population in "high risk" counties)

▨ "Medium Risk" States (19.5 to 31.3 percent of population in "high risk" counties)

(Other States had 11 percent or less of the population in "high risk" counties.)

Figure 1

CHILDREN RECEIVING MEDICAID IN F.Y. 1972 PER 1,000 CHILDREN IN THE POPULATION ON 7/1/72


D.C.
Hi
105 and over
85-104
63-84
50-62
Under 50
Not available

Figure

MEDICAID RECIPIENT DEPENDENT CHILDREN PER 100 CHILDREN UNDER 18 IN POVERTY FAMILIES IN 1970 (According to 1959 income), F.Y. 1972

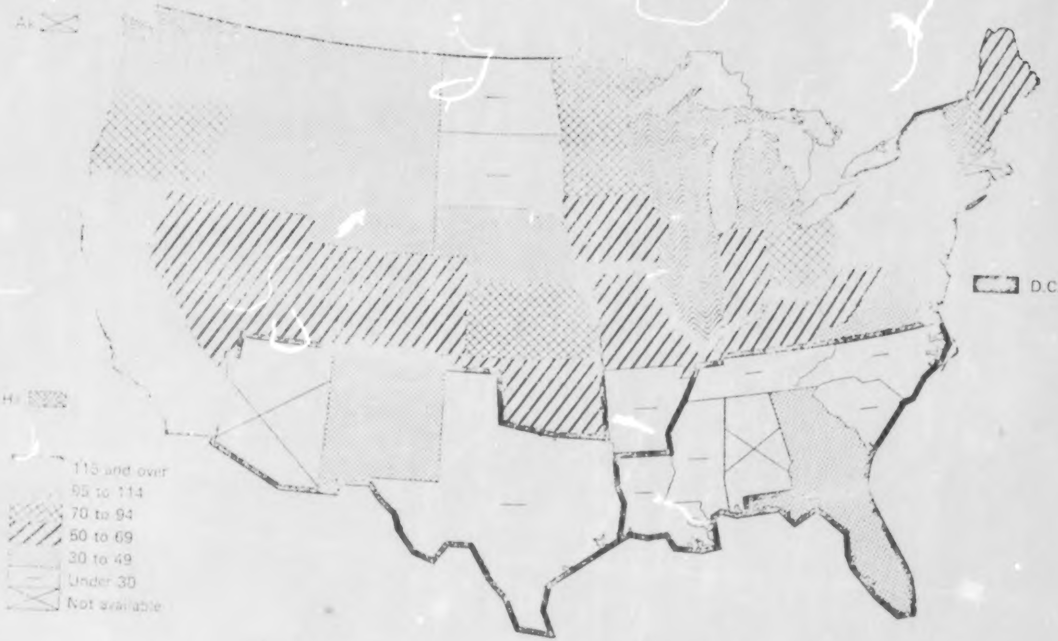
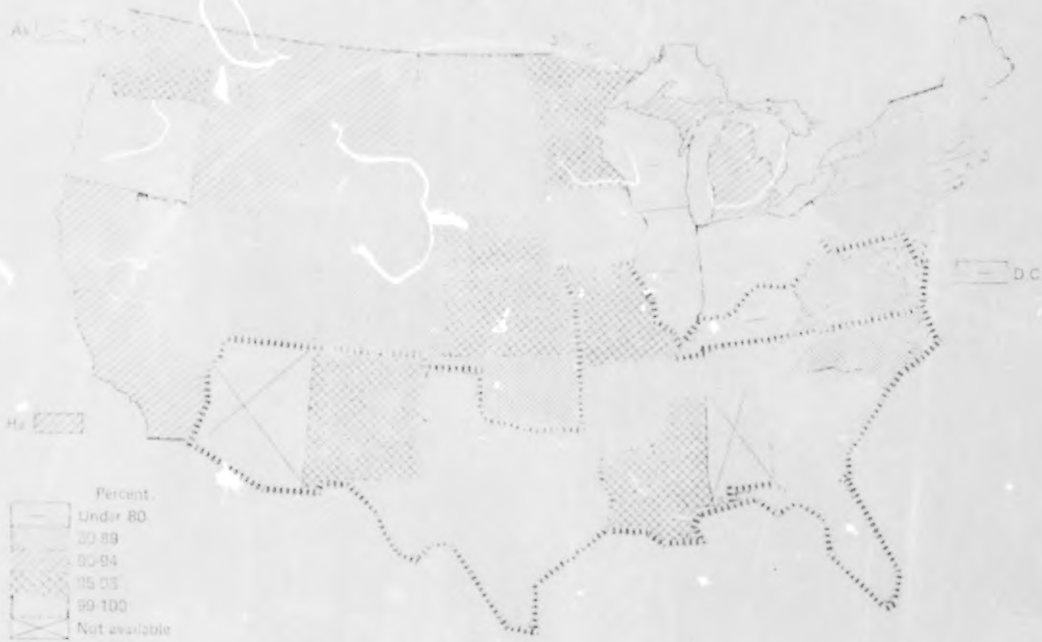

Ak
Hi
D.C.
115 and over
95 to 114
70 to 94
50 to 69
30 to 49
Under 30
Not available

Figure 2. 5

AFDC RECIPIENT CHILDREN ON MEDICAID AS PERCENT OF ALL CHILDREN
RECEIVING MEDICAID: F.Y. 1972


Ak
Ha
D.C.
Percent.
Under 80
80-89
90-94
95-98
99-100
Not available

Figure

RATIO OF AFDC [illegible] RECEIVING [illegible] SERVICES TO AVERAGE MONTHLY NUMBER OF CHILD AFDC RECIPIENTS, F.Y. [illegible]

D.C.
Ratio
Under .70
.70-.84
.85-.99
1.00-1.14
1.15 and over
[illegible]

Figure 7

AVERAGE MEDICAID EXPENDITURES FOR CHILDREN [illegible]CEIVING MEDICAID SERVICES F.Y. 1972

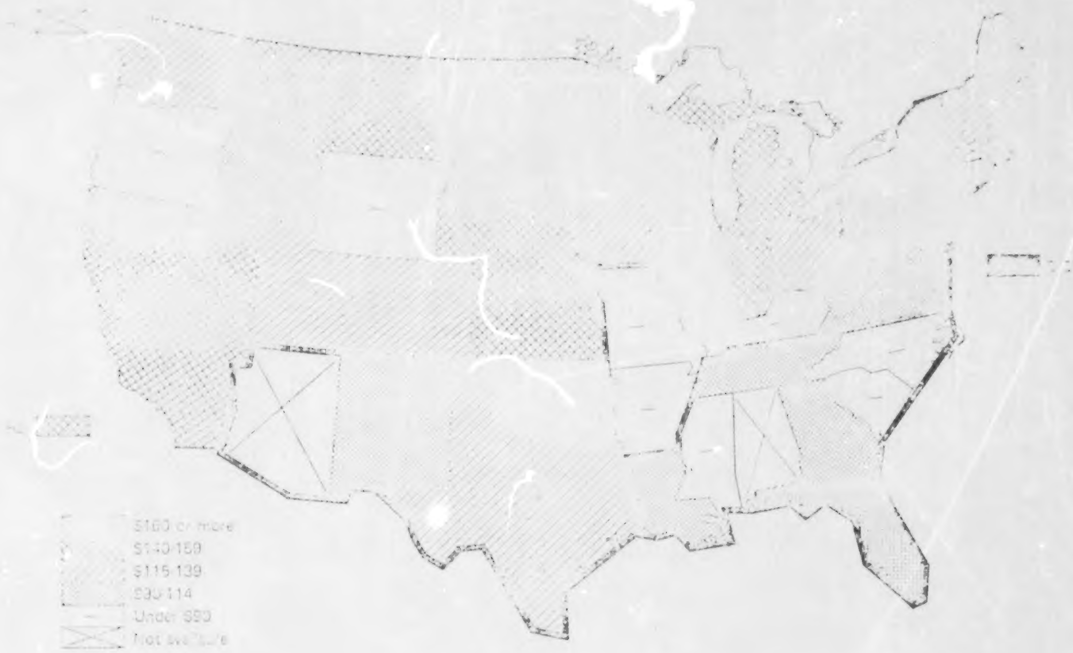
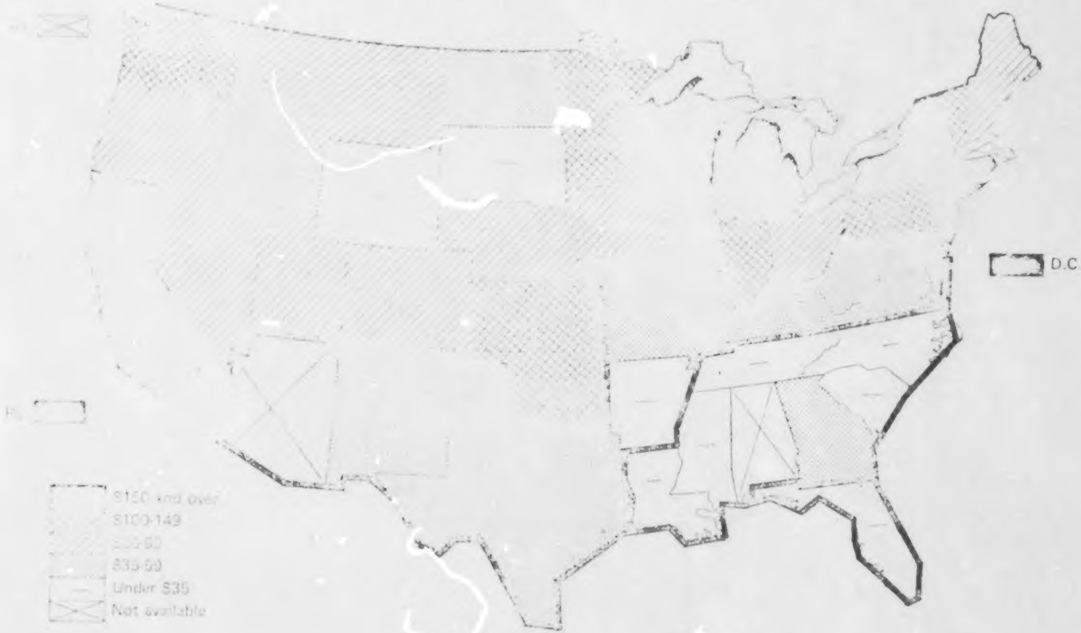

$160 or more
$140-159
$115-139
$90-114
Under $90
Not available

Figure 8

TOTAL MEDICAID PAYMENTS FOR DEPENDENT CHILDREN UNDER 21 IN F.Y. 1972 PER CHILD UNDER 18 IN LOW INCOME FAMILIES IN 1970



AK
HI
D.C.
$150 and over
$100-149
$60-99
$35-59
Under $35
Not available

STATEMENT BY

CYNTHIA P. GREEN, ZERO POPULATION GROWTH, INC.

TO THE SENATE LABOR AND PUBLIC WELFARE SUBCOMMITTEE ON HEALTH

ON S. 2538 AND S. 2360

NOVEMBER 17, 1975

Zero Population Growth commends the Subcommittee for recognizing the problem of teenage pregnancy and childbearing and hopes that the Subcommittee's discussion will focus increased public attention on this problem. The rising incidence of pregnancy among 14, 15- and 16-year-old girls indicates that current programs are inadequate and that increased funding is necessary if we wish to reduce teenage pregnancy.

Teenagers account for one out of every five births in the United States, nearly 617,000 births in 1973. A large proportion of these births--70 to 85 percent--are unplanned. One in every ten teenagers has a child in her teen years. About four in ten teen mothers are married; three in ten are unmarried, and three in ten marry before giving birth or soon after. Approximately one half of all out-of-wedlock births are to teenagers, and teenagers have approximately one-third of all abortions.

Increased concern about teenage pregnancy is the result of three factors: the increase in births to teenagers 16 and under, the increasing proportion of out-of-wedlock births among teenagers and the rising proportion of teenage births. The incidence of teenage pregnancy for women in their late teens has decreased in recent years, largely due to later age at marriage and increased access to fertility control methods. The age-specific fertility rate--number of births per 1,000 women in a particular age group--for women aged 15-19 has declined from 68.3 in 1970 to 59.7 in 1973. However, the fertility rate for women under 15 increased from 1.2 in 1970 to 1.3 in 1973--an increase of eight percent between 1972 and 1973 alone. In 1973, 85 percent of the births to women under 15 were out-of-wedlock, compared with 34 percent of the births to women aged 15-19. The proportion of out-of-wedlock births to teenagers is rising; in 1973, 216,000 births to teenagers were out-of-wedlock. A large proportion of births in the United States--19.6 percent in 1973--are to teenagers. A survey of 13 developed and developing nations found that only Jamaica had a higher proportion of births to teenagers compared with women in other age groups; Sweden, France, West Germany, Japan, Malaysia, Mexico, Hong Kong, Tunisia, Algeria, Venezuela, and Egypt all had a smaller proportion of teenage births.

Our population is growing by 1.6 million people annually excluding illegal immigration. At current fertility and immigration levels, our population will never stop growing. Approximately 432,000 births to teenagers annually are unplanned. Reducing teenage pregnancy would not eliminate all of these births, since many of them would occur later, but it would help to reduce fertility rates. Some demographers have speculated that current low fertility rates are the result of the postponement of childbearing by women in their 20's and early 30's rather than the result of decreased family size expectations. Early childbearing contributes to population growth by shortening the time-period between generations.

Women who become pregnant as teenagers tend to have more children than their peers and to have their children in quicker succession. In 1968, one-quarter of all teenage mothers had more than one child before the age of 20, and 23 percent of the births to teenagers were second or higher in order.

Teenage mothers and their children face considerable health risks. For whites, the risk of mortality associated with pregnancy is higher for teenagers than for women aged 20-29. The maternal mortality rate for nonwhites is four times that of whites but is lower for nonwhite teenagers than for nonwhite women in their 20's. The most common complications of teenage pregnancy are toxemia, prolonged labor, and iron-deficiency anemia. Poor nutrition, inadequate prenatal care, and physical immaturity contribute to the risk of complications. Children born to both white and nonwhite women aged 19 or younger have higher mortality rates than for mothers in their 20's and 30's , and the infant mortality rate for white and nonwhite mothers under 15 is more than twice as high as the rate for mothers in their early 20's.

In addition to facing higher health risks, teenage mothers are often forced to leave school and to forego job training and other opportunities for economic advancement. Unmarried mothers face social disapproval, financial hardship, and difficulty in finding work and child care facilities. If they marry, teenage mothers are more likely to have unstable marriages and financial problems than others of the same age and socio-economic status.

Teenage pregnancy is largely the result of non-use or sporadic use of contraception. A 1971 nationwide study found that 53 percent of the sexually active 15-19-year-olds failed to use any kind of contraception the last time they had intercourse. Of those who did not use contraception at last intercourse, 56 percent stated that they were too young to get pregnant, or that they had sex too infrequently to get pregnant, or that they had intercourse at the wrong time of the month. Eight out of ten (84 percent) of the non-users did not wish to become pregnant; seven percent wanted to have a baby, and nine percent said that they didn't mind if they became pregnant.

A recent study found that 71 percent of sexually active teenagers do not use contraception because of ignorance of pregnancy risk, while 31 percent were unable to obtain contraceptive services. National studies indicate that some two million unmarried women aged 15-19 are in need of contraceptive services and that only one-fifth to one-third of them are being served by organized family planning programs. In 1973, nearly three in ten (28 percent) of the 3.2 million patients seen in organized family planning programs were teenagers; a large proportion of these 896,000 teenage patients may have been married. Planned Parenthood clinics have seen an eightfold increase in the number of new teenage patients in the past six years (828 percent between 1968 and 1973). Most teenagers seek contraceptive services after they have become sexually active; many of them come to clinics initially for pregnancy tests.

Until recent years, teenagers had difficulty obtaining contraceptive services until they had produced an out-of-wedlock child. Changes in state laws since 1970 have eliminated some of the legal obstacles to contraceptive services. In 47 states and the District of Columbia unmarried women aged 18 and over can obtain contraception and other pregnancy-related services, including abortion and treatment for venereal disease. However, only 22 states and the District of Columbia allow minors to receive contraceptive services on their own consent. Additional states permit the provision of contraceptives to a "mature" or "emancipated" minor, leaving it up to the physician to determine when to provide contraceptives to minors.

Many teenagers are intimidated by the atmosphere of many clinics and the manner of medical staff who are critical of teenage sexual activity. It is extremely difficult for teenagers to locate non-judgmental and helpful counselors. Many teenagers are reluctant to ask their family doctor for contraceptives because their parents might be informed, and they are unaware of other ways to obtain contraceptive services. Their access to non-medical contraceptive methods is also limited by state laws requiring these methods to be kept behind the druggist's counter. Many teenagers are so poorly informed regarding the efficacy of contraceptives that they rely on Saran wrap or Coke douches to prevent pregnancy.

Clearly, much more needs to be done to reach teenagers with contraceptive information and services before they become pregnant. A program which concentrates only on teenagers who are already pregnant does not affect the root cause of teenage pregnancy--the lack of contraceptive information and services. Funding for family planning services has not been increased since fiscal year 1972, and no allowance has been made for inflation. During the same period, the number of teenagers in need of family planning services has grown considerably.

We support the position of the Planned Parenthood Federation of America that programs for school-age mothers include both preventive and compensatory services. Requiring a teenager to have at least one pregnancy before she can obtain counseling, information and services on family planning and other needs is discriminatory and can only worsen the problem.

As the Planned Parenthood Federation of America has pointed out, the amount of $30 million proposed in the National School-Age Mother and Child Health Act of 1975 is inadequate to meet the needs of teenage mothers, let alone to provide family planning services to teenagers who have not yet become pregnant. However, we would like to point out that pregnancy prevention programs are highly cost-effective in terms of saving future expenditures. The California Department of Public Health estimated that if only 20 percent of eligible minors availed themselves of contraceptive services and only 10 percent of teenage pregnancies were prevented, the net savings to the state would be $2.3 million in the first year. In 1970, the state of California paid $10 million for Medi-Cal deliveries for minor women who gave up their babies to foster parents, $4.7 million for adoption services, and $302 million for out-of-wedlock children under the age of seven.

We would expect that the programs funded under this bill would offer all legally and medically accepted services. Many witnesses have characterized the proposed program as providing an alternative to abortion. We feel that all women should be offered a free and informed choice between terminating a pregnancy and bearing a child. Both alternatives must be offered to pregnant teenagers. Not only are abortion facilities lacking in many areas of the country, but also many teenage women are unable to obtain abortion services due to lack of money and information. A national survey by Planned Parenthood estimated that at least 186,000 teenage women were unable to obtain abortions in 1973. Efforts must be made to expand information and services related to abortion so that teenagers are free to choose whether or not to bear a child.

In addition to expanding fertility control services to teenagers, efforts must be made to initiate and expand sex and contraceptive education programs in the schools. Sex education has received almost no federal funding to date, and the quality of such education varies widely throughout the nation. For example, in Michigan it is against the law to discuss human sexuality and contraception in the schools, while in other states some school systems have introduced well-planned and comprehensive sex education programs. The Presidential Commission on Population Growth and the American Future recommended that sex education be available to all and be presented in a responsible manner through community organizations, the media, and especially the schools. Lack of information does not prevent teenage pregnancy; in fact, it has the opposite effect.

Teenage pregnancy is a complex problem which will be with us for some time to come. But we need not perpetuate its existence by supporting programs which address the consequences of the problem rather than its cause. Failing to act today only compounds the high human, social, and economic costs to be borne by teenage mothers, their children, and society in general.

APPENDIX

Age-specific fertility rates (number of births per 1,000 women in each age group)

	1960	1970	1973
Under 15	0.8	1.2	1.3
15-19	89.1	68.3	59.7

Out-of-wedlock births

	1968		1971		1973	
	19 and under		Under 15	15-19	Under 15	15-19
Number	Approx 168,600		9,500	194,100	10,900	204,900
	Under 15	15-19				
Percent	81	27	82	31	85	34

QUOTES ON NUTRITION FROM DR. DODGE'S BOOK - NUTRITION AND THE DEVELOPING NERVOUS SYSTEM, BY Dodge, Prensky and Feigin being published by Mosby for release in November.

1. The presence of malnutrition can adversely affect cell division and cellular hyperplasia in the fetus.

" seems clear that severe malnutrition in children is associated with objective evidence of impaired brain size, chemica composition and nervous system function. Furthermore, it is difficult to escape the conclusion that nutrition is at least a major determinant of these findings. Certainly nutritional rehabilitation results in recovery from most of these acute clinical and physiological abnormalities."

"Intellectual deficits persisting into the later life have been noted in many studies of malnourished children"

Data support the conclusion that severe protein calorie malnutrition sustained during infancy and early childhood, when the nervous system is developing rapidly, is associated with reduced head size and brain waves.

Finally, the interactions of multiple factors, including the nutritional factor, are put into perspective by Birch and Gussow, 1970, who stated "Not only are malnutrition and disease almost inevitably found in populations where children begin postnatal life already having been exposed to excessive prenatal and perinatal risks but undernutrition and high levels of infection in the postnatal period are almost always found among children who are likely to be simultaneously exposed to multiple biological, social, economic, cultural and familial hazards for optimal growth and optimal mental development."

LEADERS Alert bulletin 29

Perinatal Care

The field of perinatal care — surrounding natal — birth — medicine grew out of the joint efforts of obstetricians, pediatricians, and family physicians to give expert attention to mother and child during those crucial first few months of life before and after birth.

Medical authorities estimate that infant mortality could be reduced by as much as one-third if high-quality medical care were available to all pregnancies. Hospitals around the country are finding that the incidence of prematurity and of birth defects can also be substantially decreased if high-risk pregnancies are diagnosed and monitored in time.

Too small or too soon

Some 243,000 babies are born prematurely or below normal birthweight (5½ pounds) each year. This happens two to three times more often when the mother has had little or no prenatal care. Prematurity and low birthweight are on the increase because of the growing number of girls who become pregnant in their early teens, many of whom are not physically mature enough to meet the demands of pregnancy.

Almost half of all infant deaths are associated with low birthweight, and physical and mental handicaps are about twice as high among these low-birthweight infants.

The importance of nutrition and prenatal care

Medical researchers have found that malnutrition before birth appears to be a major factor in low birthweight, as well as in mental retardation.

March of Dimes grantee Dr. Myron Winick at Columbia University has shown that offspring of protein-starved rats are born with fewer brain cells, and that these deficiencies cannot be remedied later on. Follow-up studies of undernourished children in Latin America and elsewhere have shown they develop learning problems in school.

Other causes of prematurity and low birthweight are heavy smoking or drinking during pregnancy, chronic illness, toxemia, or hormonal imbalance in the mother. Since these conditions can often be checked and controlled with adequate prenatal care, our continuing education programs alert prospective mothers to the need for seeing a doctor as soon as they suspect they are pregnant.

High-risk mothers

These are the women who must be watched and given comprehensive perinatal care because their babies are most threatened by stillbirth, low weight, prematurity, retardation, or early death. Problem pregnancies occur most often when the mother:

- is under 17 years old, or over 35
- has a metabolic disorder such as hyperthyroid condition or diabetes
- has a family history of inherited disorders
- has a structural abnormality of the pelvis
- is either overweight or underweight
- has an Rh blood incompatibility with the infant
- suffers from a chronic illness, or contracts an infection during pregnancy
- takes addictive or therapeutic drugs
- reports a history of previous miscarriage, underweight or premature babies, or toxemia
- has minimal education, is poor, has had many children, is unwed and without male support

Fetal monitoring

Danger signals can now be detected before delivery by means of modern equipment that monitors fetal development. One of these new diagnostic devices is an ultrasound machine. It uses sound waves to locate the position and note the size and structure of the fetus in the womb.

Defects in structure can be spotted this way. It is also possible to detect and prepare for multiple birth or breech position.

During prenatal visits, doctors test the urine of some high-risk pregnant women for hormone content. A fall in estriol levels can indicate fetal distress.

Another boon to the high-risk mother and child is the fetal heart monitor. It records the infant's heartbeat pattern and can signal fetal distress during labor. Monitoring high-risk pregnancies with this machine is doing much to decrease or avert brain damage due to insufficient oxygen.

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The data from these machines and laboratory tests must be interpreted by trained personnel. The National Foundation has been supporting training programs for nurses and other perinatal specialists to help them diagnose and monitor high-risk pregnancies.

Prepared childbirth

The risks of childbirth can also be reduced when the mother is physically and psychologically ready for the process [illegible] cooperates in delivering her own baby.

Preparation for childbirth classes are being conducted in many cities throughout the country. Many fathers like to participate in the "natural childbirth" classes, helping their wives with the breathing and "pushing" exercises. The MOD also supports the training of nurse-midwives who work with the woman before and during labor. The use of nurse-midwives has greatly reduced the incidence of perinatal injury and mortality in some sections of the country where there is a shortage of doctors.

Neonatal intensive care

There are many more ways that care is given for an infant in distress than could be done ten or even five years ago. Here, new research and technology are lowering the [illegible] of critically ill newborns.

Oxygen—Respiratory distress is the most common syndrome of premature or small-for-date infants. Portable respirators are now helping to save lives. With the new technique of blood gas monitoring, nursing personnel can determine how much oxygen is necessary.

Warmth—An overhead radiant heat warmer now makes it possible for a baby to be fed, changed, even operated on, while lying on an open table. The heater's output is regulated automatically by the infant's own body temperature.

Food—Infants with underdeveloped digestive systems used to have to wait several hours to be fed, and often could not absorb the food. Now, [illegible] are inserted right into the [illegible], providing proper nourishment immediately, and [illegible] growth stimulation.

Special problems—Phototherapy (treatment with light) is used to correct the jaundice resulting from Rh or ABO blood incompatibility.

Pediatric surgeons now operate safely on infants suffering from spina bifida, hydrocephalus, intestinal, heart, or other structural defects.

As with fetal monitoring, neonatal monitoring requires skill in the use of sophisticated equipment plus a knowledge of what to look for in the intensive care nursery.

T.L.C.—Dr. Marshall Klaus, head of the Pediatrics Department at Case Western Reserve University, has pointed out the need for "bonding," or the development of an emotional attachment between parents and child from the first day [illegible]. Intensive care nurseries encourage parents to visit so they can touch and hold their infant and avoid a feeling of estrangement later on. Part of the job of the intensive care nurse is to work with parents to help them overcome any feelings of guilt, anger, or rejection which may interfere with their ability to take care of the infant. When the parents cannot visit, the hospital staff itself makes provisions to give each baby "tender loving care," and it is not unusual to see rocking chairs next to the complex neonatal equipment.

Transportation and communications

Time is of the essence in treating critically ill newborns. For that reason it is extremely important that rapid transportation service is available—especially in sparsely populated regions.

Many hospitals now have fully equipped vans which can provide emergency treatment en route to the hospital.

Not every local hospital is equipped with expensive perinatal equipment and staff of experts. Nor do they have to be, when they can communicate with a regional center. A "perinatal hot line" has been set up at the James Whitcomb Riley Hospital in Indianapolis by MOD grantees Drs. Morris Green and Edwin L. Gresham. It's a 24-hour telephone service with a team of perinatal specialists offering advice and making referrals.

The University of Arizona Birth Defects Center in Tucson is another of the growing number of hospitals who maintain 24-hour consultation services.

Closing the gap

At The National Foundation's invitation, leaders of American obstetrics, pediatrics, and family practice have joined to form a Committee on Perinatal Health. This committee explored the best use of manpower, facilities, and funds to meet needs for maternal and infant care in different parts of the country, and drew up guidelines for use by physicians, hospital administrators, government agencies, and others who provide care for pregnant women and for newborns. Its recommendations include:

1. *Regionalization of care, with facilities distributed among three types of hospitals:*

Some hospitals are fully equipped high-risk neonatal medical and surgical intensive care centers.

Others have sophisticated intensive care but are not expected to handle the most severe cases of neonatal disease.

Many local hospitals deliver fewer than 1,000 live babies annually. They diagnose trouble but refer emergencies for treatment elsewhere.

2. *Training of perinatal personnel.*

March of Dimes grants are being made in accordance with these recommendations.

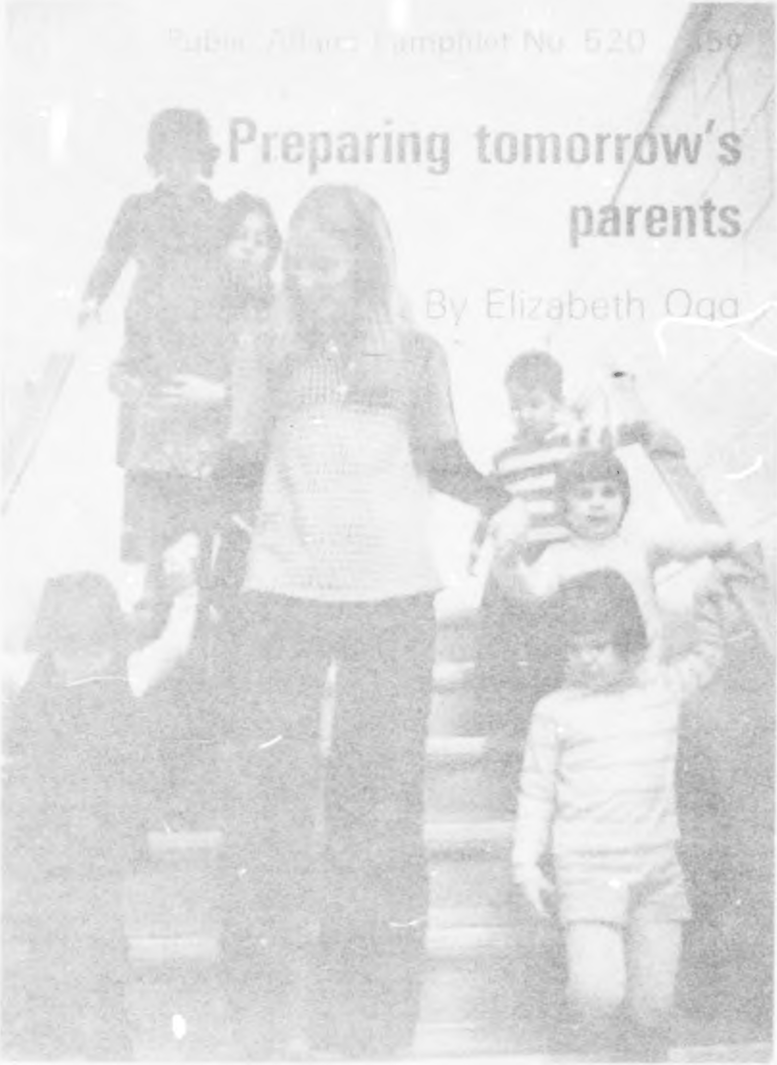
The three R's of perinatal medicine are Risk, Relationship, and Referral. That means early determination of the Risk to which every pregnant woman may be subject, establishment of close Relationships between the doctor's office, the community hospital, and the regional intensive care facility, and Referral of [illegible] high-risk [illegible] to the regional unit [illegible] neonatal emergencies.

—L. Joseph Butterfield, M.D.
Children's Hospital, Denver

Public Affairs Pamphlet No. 520 35¢

Preparing tomorrow's parents

By Elizabeth Ogg



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This pamphlet is one of a series published by the Public Affairs Committee, a nonprofit educational organization founded in 1935 "to develop new techniques to educate the American public on vital economic and social problems and to issue concise and interesting pamphlets dealing with such problems."

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Preparing tomorrow's parents

By Elizabeth Ogg

Elizabeth Ogg is a well-known freelance writer. She is the author of many Public Affairs Pamphlets, including Securing the Legal Rights of Retarded Persons, Population Growth and the American Future, *and* Voluntary Sterilization. . . . *Photographs by Richard E. Swartz for the U.S. Office of Child Development.*

☐ A toddler, dragged along by the hand, trips and falls over a sidewalk cellar door. She begins to cry. The mother yanks her to her feet and slaps her, causing the child to cry even harder.

☐ A young father, at home while his wife is at work, spanks his seven-month-old baby for pulling the nipple off his bottle and spilling formula in his crib. When a visitor suggests that the nipple probably wasn't put on properly in the first place, the father's comment is, "He's been asking for this all day!"

☐ A teenage mother says of her baby, "If he doesn't go on the potty by the time he's a year and a half, he shouldn't eat."

In such ways, young people who have stumbled into parenthood by accident or in response to social pressures express resentment toward their children. Swamped with responsibilities they haven't bargained for and don't know how to handle, and often cut off from opportunities for their own further development, they vent their frustrations on their youngsters. Some may also be revenging or repeating harsh treatment they themselves suffered as children.

Ignorance compounds this resentment. These parents have no idea what can reasonably be expected of children at different stages of growth. Asked when they thought their newborn infants would be able to sit alone without support, a group of young fathers said, "at six weeks." The mothers in the group thought it would be at about twelve weeks. In fact, most babies can't sit alone until they are twenty-eight weeks old. Both fathers and mothers expected their babies to be toilet-trained at about six months or earlier, although children generally are not ready for bowel control before their second year or for urinary control before the third. Most of these young parents admitted spanking and slapping their children, often just for crying—as one mother put it, "When I can't take it any longer." When exasperated, some shook their babies roughly—a practice that can seriously damage an infant. Only five out of forty-eight mothers cuddled or played with their babies for the sheer pleasure of it.

These facts came to light in a three-year study of married adolescents in a semi-rural district of Pennsylvania. Almost all the couples had been expecting a child at the time of their marriage, and 79 percent of the partners had dropped out of school without graduating. So they are not typical. Yet three-fourths of all teenage first pregnancies *are* conceived before marriage, another study shows. In any case, answers to similar questions put to a group of unmarried high-school seniors revealed the same misconceptions about child development.

WHY TRAIN FOR PARENTHOOD?

Although the vast majority of children grow up to be parents, we have traditionally offered no experience or training to help them fill that role. Parenthood is supposed to be instinctive, or learned in one's own family. The shrunken nuclear family, however, no longer provides such learning. As a rule, it has only two children, compared with an average of five a hundred years ago; hence few teenagers have younger siblings to remind them of earlier stages in their own development. And the segregation of peer groups in schools, sports, and recreation further diminishes the chances of mixing with other age groups. Of course, the old-time big families weren't all havens of harmony, but the older children did get some practice in handling babies and toddlers and some understanding of behavior characteristic of youngsters at different ages.

About nine million children in the United States today are being raised by only one parent, and thus have no experience of parental teamwork in their own lives, and no model for the parent who is missing. Even where both parents are present, most teenage children spend the bulk of their time in peer group activities away from their parents.

teen marriages multiply

Our national neglect of education for parenthood bears much bitter fruit, especially for the growing group who become parents in their teens, before they have completed their own development. One in every ten 17-year-old girls in the United States is a mother. In 1974, about 220,000 girls aged seventeen or less gave birth, 15 percent of them for the second or third time. Such early childbearing runs much greater health risks than childbearing after age twenty. More toxemias, hypertension, and perinatal complications accompany these pregnancies. The babies are apt to be born prematurely, and as a consequence are more often mentally retarded. Even when carried to term, they tend to low birth weight. Estimates of the maternal and infant mortality rates associated with adolescent pregnancies run about 30 percent higher than those for mothers over age twenty.

Early childbearing also frequently leads to early marriage, repeated pregnancies, unstable family life, and welfare dependency. Wed or unwed, teenage parents are apt to cut short their schooling and acquire only marginal work skills. Their prospects are dim. The national divorce rate for those married in their teens is three to four times higher than for any other age group. Nine percent of teenage mothers attempt suicide—seven times the national rate for teenage girls who have no children.

Even relatively mature couples are apt to handle their first baby ineptly, particularly if, as so often happens, their own parents are not nearby to help. Not that parental guidance is always enlightened. In the Pennsylvania study mentioned earlier, three-quarters of the couples lived with the parents of one spouse or the other. The advice they typically got was: "Do what comes naturally," "Let the baby cry it out so it won't be spoiled," "Be strict and make the child mind," and "Toilet-train the baby as soon as possible."

abused children

What happens to the children who suffer inadequate parenting is also critical. Among the leading causes of death in infants under 18 months old, maltreatment ranks fourth. Each year, it is estimated, some 10,000 children are severely battered; 50,000 to 75,000 are sexually abused; 100,000 are emotionally neglected; and another 100,000 are physically, morally, or educationally neglected. Most shocking of all, at least 700 children are killed by their parents or parent substitutes every year. Nor are these horrors confined to poor families. In all classes there are parents who lack even an elementary awareness of their children's physical, emotional, and early learning needs.

The tragedy is not the children's alone: There can be little doubt that much of the mental illness, drug abuse, delinquency and crime that tear at our social fabric stems from hurtful, stunting experiences in childhood. Poverty contributes to these social ills, of course, but poor parenting also plays a major role.

offering options

Educating adolescents for parenthood should not mean explicitly steering them into that role. They should be free to accept or reject it. But whatever their choice, all can benefit from learning to see children as individuals and to respond sensitively to their needs. They will thus gain insight into the causes of tensions in their own families and be better able to deal with them. As they observe men and women doing productive, enjoyable work with young children, some may be moved to choose a child-care career themselves—as day-care aide, teacher, nurse, child psychologist, or pediatrician. And teenagers who know what goes into good parenting will be more likely to help our society become more concerned about the welfare of children—through their influence on legislation and social programs.

PIONEERING PROGRAMS

Courses in child development and family living have long been offered in public schools, but most have been dryly academic, with no practical experience to spark the classroom study. Usually confined to home economics, they have attracted mainly girls. More recently, some vocational education courses for prospective child-care workers have been introduced, but these too enroll chiefly girls. In 1969-70, less than 10 percent of our high-school population chose vocational education/home economics courses of all types, and this included only 2 percent of the boys. In 1970-71, only 5,500 boys signed up for child-development courses, and fewer than 3,000 for care and guidance of children—hardly enough to make a smidgin of change in the next generation of fathers. Nevertheless, parental training programs with real impact have been launched in several areas of the United States.

teens meet toddlers

As early as 1964 a new kind of laboratory course in child development, meshing experience with theory, was tried out in a high school in Montgomery County, Maryland. It was so successful that similar courses are now offered throughout the county's high-school system. Each high school organizes a nursery school in which teenagers can study child development and learn parenting and teaching skills by working with the same group of preschoolers over an extended period. Parents have not hesitated to bring their three- to five-year-olds to such teaching laboratories. Indeed, there are long waiting lists.

The high-school students first put in six weeks studying the characteristics of young children—through films, field trips, and classroom discussions. Then the nursery sessions begin. They run for two six-week periods, with a week in between for review and evaluation, and meet for about two hours four days a week.

On these four days, each teenager works on a team performing a different function. One day the team serves as nursery school teachers. The next day the students take notes as they observe the work of another teaching team through a one-way screen. On the third day they do research in child development, and on the fourth they plan the next week's teaching assignment around a chosen theme, such as animals, the family, or "what will you be when you grow up?" Students meet with their teacher on the fifth day to analyze the week's experience, and sometimes meet with an art, music, or reading specialist or child psychologist.

In the nursery school, it's hard to say who enjoys the encounter most—students or preschoolers. There seems to be a natural affinity between teens and toddlers. The children love to help the student teachers prepare the day's snack, whether pudding or gelatin or little tarts that bake in the oven while the play goes on. And since play is serious for the toddlers, the students take it seriously too. A strapping 18-year-old football player patiently submits to a lathering by a pint-size would-be barber, wielding a rubber spatula for a razor. A teenage girl solemnly acts the role of policeman as she explains to the children, on a walk around the school grounds, what various specially posted road signs mean.

"Teenagers respond to the increased responsibility," says a teacher. "I am constantly surprised by the amount of in-depth research they undertake on their own, and the understanding they gain from it. [Even] kids who don't relate easily to their peers have no difficulty communicating with preschoolers."

The mutual attraction extends to students throughout the high school. Industrial arts students build climbing equipment for the nursery school and keep it in repair. Autobody students mend tricycles and wagons. Teenagers studying speech practice storytelling on the toddlers, drama students put on plays, music students perform and teach the children songs, and those in horticulture help them plant a garden.

6

"on-the-job" training

In Locke High School, Los Angeles, which serves the Model Cities area of Watts, parenthood education became a community-wide effort. It was led by a woman teacher who saw a triple need—for parental preparation, for child-care training to equip teenagers to hold productive, paying jobs, and for a way to keep potential drop-outs in school.

Instead of setting up its own nursery school, Locke sends its child-development students to work in Head Start classes, day-care centers, the children's library, pediatric clinics, and the primary grades of elementary schools. Locke established good working relationships with these institutions.

This broad-based community support has led to the building of a day-care complex to house all the area's child-development students, plus 200 preschoolers in day care, a health center, and a mental health unit. Partial funding has come from the U.S. Department of Housing and Urban Development and the Los Angeles school system. Community groups have raised the rest.

sixth-graders learn child care

In Dallas, Texas, in the early seventies, the Ewell D. Walker Middle School introduced innovative "Classes in Personal Living" for sixth-grade girls. The girls spend equal time in classroom discussions and as observers in a playschool for twenty toddlers set up in the school's homemaking department. While learning child development and child care, each student is expected to gain insight into her own behavior and to develop self-discipline. As they plan and supervise most of the playschool activities, the sixth-graders often make unique contributions. Ellen, for example, who had never done well academically, acquired welcome status when it was found that she could blow up a plastic inflatable toy faster than any of her classmates. This acceptance gave her more self-confidence, which, in turn, helped Ellen make changes for the better in her school work and her relationships.

school-age parent programs

One thrust that turned these scattered developments into a national movement came from professionals who in the sixties were concerned with the problems of school-age pregnant girls. The organization that took the lead in 1968, later named the Consortium on Early Childbearing and Childrearing and affiliated with the Child Welfare League of America, operated with funds from several government agencies.

Through regional conferences and workshops, the Consortium brought together educators, doctors, nurses, and social workers to plan ways of creating or improving comprehensive care programs for school-age pregnant girls. In 1968 there were only 35 such programs in existence; by the end of 1970 there were 175. In 1970, too, professionals from several fields joined together to form the National Alliance Concerned with School-Age Parents. Their first goal was to alter punitive policies toward pregnant teenagers—to see that they were permitted to continue their education and were given good medical care and needed social services. Gradually, their services expanded to meet the needs of young mothers, their babies, young fathers, and relatives—whose cooperation is often essential to teenage parents.

The big difference between an adolescent and an older mother lies in the teenager's need for regularly scheduled blocks of time away from her baby in order to continue working toward her own personal development. To enable her to return to school, infant care centers are set up in schools, hospitals, churches, or other community agencies. In the long run, if she is successful in school and at work, the teenager's mothering capabilities may be enhanced. The infant care centers are indeed ready-made for teaching her the necessary skills. Observing how their babies are handled there, young mothers begin to learn effective child-care techniques. As they try out these techniques at home, they gradually build up a feeling of competence as mothers.

One question the educators have had to deal with is whether childrearing practices that conflict with the cultural traditions of young parents should be taught. Most professionals agree that in their programs the practices of ethnic and racial groups must be respected. But they feel that certain basic needs of children—such as a balanced diet, cuddle care, and early eye-to-eye and verbal interchange—are too crucial to ever be set aside. Perhaps the really critical issue is the way such values are taught—a set of edicts from people who act as if they have superior know-how will never be accepted; gentle persuasion may be.

EDUCATION FOR PARENTHOOD

For educators to concern themselves with an adolescent girl's parenting skills only after she has become pregnant, however, and to ignore those of the adolescent boy altogether, is now seen as "too little, too late." All children should learn how to be good parents, just as they learn the social arts and the skills necessary for holding a job.

It was this realization that led the U.S. Office of Education (OE) and the Office of Child Development (OCD) to launch a joint program in the fall of 1972 to help schools set up new parenthood training programs or improve old ones. The idea was to broaden approaches to include experience in child-development laboratories like those in Montgomery County, Maryland, or field work in day-care centers and nursery schools; to use films, filmstrips, and audio-cassettes; to hold free-ranging classroom discussions of field experiences; and to allow students to carry out independent research projects. Other departments besides home economics and vocational education were to be drawn into creative collaboration—health and physical education, social studies, biology, fine arts, guidance and counseling—along with health and social service agencies outside the schools. Efforts were to be made to reach out to boys, and to parents. Although it was called Education for Parenthood (EFP), the program was also seen as preliminary training for boys and girls whom it might attract into child-care careers.

OE-OCD's five-year allocation of approximately $5.6 million to EFP does not cover any direct grants to schools or to other community agencies. It is seed money—to supply technical advice and curriculum materials, find qualified staff, locate field work sites, and generally help programs get started. The schools and agencies must find the money to carry on the programs.

exploring childhood

The major new curriculum materials offered by OE-OCD are contained in a package called "Exploring Childhood," designed by the Education Development Center in Cambridge, Massachusetts, under a grant from OCD and the National Institute for Mental Health. After testing in more than 200 schools, the materials are now available for general distribution.

"Exploring Childhood" is a one-year elective course for boys and girls in Grades 7 to 12 and can be adapted for use with adolescents of varied cultural backgrounds. Its first concern is to create a climate in which students feel comfortable discussing such personal topics as experiences they have had with small children, their ideas about what children of different ages can do, and their own childhood memories. If they are to work successfully with children, they must feel free to share problems and failures and give one another support, instead of competing.

Even at this stage students who have never done well academically sometimes begin to bloom. They may have been babysitters or may have taken care of younger brothers or sisters. Out of

these experiences come suggestions their classmates value. Finding, perhaps for the first time, that others listen to them with respect, they may undergo a remarkable change in their attitudes about themselves and about school work in general.

During the first month of the course, students observe at field sites, using observation forms, case studies, workbooks, audiotapes, and films to sharpen their powers of observation, learn what happens in a preschool, and develop ways of working together. They are also shown techniques for helping small children, so that they will bring some know-how to their field work from the start.

For example, an illustrated storyboard presents a typical situation that may arise in a preschool, then asks students why they think it happened and how they might deal with it. One called "Playing Alone or Together," for instance, helps teenagers understand that solitary play is OK if it's freely chosen, but not if it's forced on a child because other children exclude him from their play. Through discussion the class may arrive at several alternative ways of helping the excluded child.

Once their activities with children begin, classes move on to the study of child development. A film showing children of different ages illustrates the steps in maturation, and is also used to study differences in the behavior of children of the same age—an introduction to human diversity. Discussions of theory are closely tied to the field experiences, and it is frankly admitted that no one has all the answers on what is best for children.

open questions

Is there a universal goal of maturity toward which every child is growing, or are there different goals dictated by different environments? An Eskimo child who must live in a tiny igloo for nine months with several other people must learn to inhibit displays of anger if life is to be bearable for the group. But an urban American child is expected to grow up to assert himself aggressively when threatened. To those who believe the environment determines development, neither control nor expression of anger in itself is a sign of maturity: it depends on the environment to which child and adult must adapt.

Is a child shaped primarily by the experiences others arrange, like a passive lump of putty, or does he or she actively seek out experiences that contribute to learning? In the one case the child will in a sense be "created" by those who reward or punish, since they will serve as the child's model. In the other, the child has some control over his or her own development.

Through exposure to such questions, students in search of cut-and-dried prescriptions for childrearing may learn to look more closely at their own experience, and develop their own concepts of what a human being should be, both as child and as adult.

To see how field work and theory mesh, take, for example, the unit on children's art. As they compare children's drawings collected at their field sites with the course materials on children's art, students are soon able to recognize each child's stage of development by noting the emergence of line, shape, or symbol. This leads quite naturally to a discussion of motor control maturation and intellectual growth. When students try to influence preschoolers' art—Why don't you put in a tree, or a fence, or some flowers?—the class doesn't debate the question, "Should we or should we not shape our children?" but "When do we shape children?" and "What are the consequences?" A discussion of this kind helps teenagers clarify their own ideas about how much a child can be shaped, and how they would want to shape their own children.

To start them thinking about a child's way of experiencing the world, students are asked, "Do you think the children see you as you are?" In a game with picture cards, they note how preschoolers invariably show the picture upside down to a person across the table. Thus, they begin to grasp the self-centered nature of a child's perceptions and his inability to understand that another person sees things from a different vantage point.

In the second half of the school year, classes take up the study of socialization. A film series showing different families at breakfast leads to discussion of such questions as, "What values are being conveyed in these commonplace interactions?" "What is the child learning about men, about women?" "How does each family handle authority, and deal with conflicts?" "How do they express love for their children, and foster autonomy?"

Finally comes the study of how different societies help families care for their children. Again, films are the focus: they show the child's world in three different societies—Israel, the Ibo culture in Nigeria, and the United States. Students may be asked to find out how their own communities help families.

action research

The teenagers are encouraged to work independently in some area of child development that especially interests them: the arts, play and entertainment, health issues, politics, psychological factors, schools and learning, or styles of childrearing. The topics are deliberately broad to offer varying degrees of challenge to students who may or may not have previously undertaken independent projects. The young researchers are expected not merely to read but to observe at first hand, conduct interviews, involve themselves in a community activity, apprentice themselves to a child-care specialist, or take part in film-making or other recording techniques.

In the play and entertainment area, for instance, a teenager might investigate toys, perhaps visit a toy store, and compare the toys there with those in the preschool. What are some of the functions toys have for a child? How do they help him learn about the world? The student might try to classify the toys according to the age and sex they were designed for. He or she might write a description of our society based solely on the kinds of playthings we give our children, and contrast these with the kinds given to children in other cultures. The student could make a list of toys he or she finds unsuitable for children, explain why, then design and construct others, and test them at the field site.

To measure their progress, students use workbooks that help them analyze their field activities and decide what they have learned from them. They also keep journals in which they record experiences at field sites, responses to their class work, and thoughts about their personal growth. Here is a passage from one high-school boy's diary:

> At recess we had a little problem with holding hands, then everybody went to the bathroom. I waited for them. Five or six people came back and wanted to hold my hands. They started getting weird. . . . Eliz said 'I was here first,' etc. and things were getting pretty rowdy. So I suggested that we hold each other's hands . . . . heard of this in class on Mon. or Fri. I really like the idea, it's full of positive things

and it works. At first we were in a circle but found it hard to walk around the playground that way, so somebody let go and then we were a line. Everybody satisfied.

how students respond

It is still too early to gauge the long-term results of Exploring Childhood, but there is no doubt that student response has been generally enthusiastic. For some, the course delivers exactly what it promises—education for parenthood. A 17-year-old girl in St. Louis says, "I know that someday when I'm married and have children, I'll draw on this experience that I'm having now. My kids won't be experiments. I'm having the experiments now and learning how to handle them." An 18-year-old football player explains that he took the course because "I'm fascinated with little kids and how they work. Some kids fight—I ask them why because I like to know the reasons they fight. . . . Bobby intimidates John here because his younger brother gets all the attention at home. If I become a father, I'll have a better idea of how to raise kids properly."

Others learn as much about themselves as about the children they work with, and grow in self-confidence at the same time. A teenage girl reports, "The children like me for what I am. . . . I can be myself here." A member of the track team says, "I understand everyone better, including myself. If you think about it, most people are like kids. Kids are easier to understand because they're not as inhibited."

For many, this understanding of self and others leads to better family relationships—more tolerance of younger brothers and sisters, improved communication with parents. As one student put it, "You can't rush home all excited and tell your mother and father that you scored well in geometry. That's no fun. But all three of us are interested when I tell them some unusual experience with a little kid."

For boys and girls on the brink of dropping out, this learning through living has provided an incentive to stay in school. "I used to have to practically kick my boy out of bed in the morning to get him started to school," says one mother. "Now he's on the first shift of the day-care center and he's always way ahead of me—up early and off to school. I can't remember when he was as enthusiastic about anything as he is about those little

kids. And there seems to be a contagion about it. Since he started the day-care work, he does better in all his classes. I've heard other parents say the same thing."

To a few, the discovery of what parenting involves brings home the sober truth that they don't want the long-term responsibility of having children of their own. For them the EFP experience was valuable because it helped them decide on their real priorities. Especially in a time of mounting population pressures and thousands of abused and neglected children, a child-free lifestyle ought to be considered a respected option open to all.

Although this idea is not yet generally accepted in our society, the U.S. Census Bureau reports that the number of American couples planning not to have children quadrupled in the six years prior to 1973. And there is now a National Organization of Non-Parents [NON], with headquarters in New York City and a growing membership. "We're all for people having children who really want them," its leaders say, "but we're against the kind of societal pressures that lead to automatic parenthood."

what about the teachers?

The best kind of teacher for Exploring Childhood seems to be one who is adaptable, who can be open with students—let them be angry with her (or him) and with one another, for example—and who will not be embarrassed by any questions they may ask. These qualities have nothing to do with age. There is at least one person on practically every school staff who has them, and who will gladly teach the course. Those who shy away from it should not be pressured into taking it on.

Through 1973-74, OF OCD staged four training workshops for EFP teachers in each of five regions of the country. Both course teachers and preschool teachers from the field sites were urged to attend. Here they could share experiences, ideas, problems. Locally, class and field-site teachers are expected to confer at least once a week, in person or by telephone, and of course they have brief exchanges whenever the class teacher visits a field site.

The workshops introduce the course materials and explore ways of using them. There are 30 films in the Exploring Childhood package, and each can be used more than once to illustrate different aspects of child development. Another topic is how to link up the teaching units—for example, child development with family, and family with culture.

Teachers attending the workshops are generally enthusiastic about EFP. A few have learned sign language and taught it to teenagers now working with deaf children. Others have inspired their students to work with mentally retarded youngsters.

"I really like the emphasis on learning from experience . . . rather than all academics," one teacher remarked. Some other comments: "My students enjoyed finding out the answers rather than being told." "I have been able to respond on a more personal basis with the students." "I can see a big change in my students' attitudes. This course definitely helps them accept responsibilities and plan for the future."

On the other hand, some teachers have reported that their students couldn't work in the "open" discussion format: they identified it with "no work" in contrast to the usual classroom procedure. They also resisted role-playing at first: they were too concerned about how their peers would judge them and felt self-conscious. It took time to break down this resistance.

parent participation

Two sets of parents have a stake in EFP. The preschoolers' parents want to be sure that the teenagers working with their children are properly trained and supervised. It is a good idea to have these parents meet with the course teacher in advance, to look over the curriculum materials and discuss how they will be used. Parents also worry that the teenagers might have access to personal information about the preschoolers' families. It's up to the field-site teacher to discuss this concern with parents and involve them in decisions that affect privacy.

The parents of the high school students are mainly concerned about their children's safety traveling to and from the field sites or on field trips. The course teacher should always get parental permission for such travel.

Parents of both teenagers and toddlers may make valuable contributions to the course—by visiting the high-school classroom to talk over with students problems and experiences they may have had related to childrearing, such as retardation, divorce, or the death of a parent. Although Exploring Childhood does not include any formal study of pregnancy, some classes have assembled questions about it and invited a pregnant woman to come in and answer them. If the guest is willing to come back later with her new baby, an extraordinary rapport develops. Students say to the baby, "I saw you before you were born. You are *our* baby."

EFP IN YOUTH AGENCIES

A new phase of EFP began in mid-1973 with Office of Child Development grants to seven national youth-serving agencies to design parenthood education projects outside the schools. The recipients of these grants, totaling about $2 million for three years, were:

Save the Children Federation—Appalachian Program
National Federation of Settlements and Neighborhood Centers
Boys' Clubs of America
The Salvation Army
Girl Scouts of the U.S.A.
Boy Scouts of America
National 4-H Club Foundation of America

During the first year these organizations launched a total of 29 pilot projects for urban and rural teenagers. Out of these experiences, they have developed training manuals, child development guides, and other materials they now offer to their members nationwide. Here are a few highlights of these programs.

child advocates

In Lincoln County, West Virginia, the Save the Children Federation (SCF) trains teenage boys and girls as child advocates. They visit preschoolers and parents in their homes, bringing educational games and toys and story books with them. A toy left in each home for a week is pretty sure to involve the parents, for the child will want them to help him play with it. Each teenager works for one hour at a time with an average of four preschoolers a week—playing games, reading stories, taking walks and talking with the child—and keeps a journal about these experiences. Once a week the advocates meet for further training.

At first, the boys in the program were ribbed by schoolmates for taking on "women's work." Yet more boys applied to join the second year. Was it because they were paid $1.60 an hour for their weekly five hours of work and got class credit as well? A consultant to the program thinks not. The advocates really care about stimulating the children to learn, she says, and at the same time are themselves learning something highly relevant to their own lives. Other SCF projects in Tennessee, Kentucky, and Mississippi are similar and all enroll boys as well as girls.

urban youth

In sharp contrast to the rural SCF plan, the National Federation of Settlements and Neighborhood Centers (NFS) concentrates on low-income urban youth, aged 12 to 15, who frequent its neighborhood houses in Chicago, San Antonio, Denver, Philadelphia, and New York. Because these young people tend to drift in and out of any settlement activity, Education for Parenthood must be fun and down-to-earth, to hold them. Rap sessions with film showings and guest speakers, followed by questions and answers, are popular. And observation field trips, outings, and parties help to create a group feeling.

This is all the more necessary because these teenagers, to quote the NFS preliminary report:

> had little or no prior experience as responsible members of an organized group. They did not express themselves and were obviously not accustomed to being expected to do so. Nor were they accustomed to thinking of themselves as being capable of making valuable contributions to a group, or to anyone for that matter. During the early stages of the program, 'I don't know' dominated participant responses on matters of opinion and choice. They really didn't know because no one had ever asked. . . . They had not explored their own neighborhoods beyond the few blocks on which they lived and went to school. They had met few people. . . . Exposure to culture and the arts was minimal. In short, we found our participants had done very little, seen very little, and spoke hardly at all.

Only when communication and positive personal relationships had been established within each group, could the informational content be tackled. It began with sex education, which has received unqualified support from parents, community groups, and social agencies. Despite the fact that the NFS program has presented frankly such sensitive topics as birth control, homosexuality, and masturbation, it has also won the approval of many Catholic parents, contrary to expectations.

After films and talks on child development and the role of parents comes supervised practice in child-care settings. This fires almost all participants with ambition. They see themselves in an adult role—indeed, already in a job. Most local projects have buttressed this new self-image by paying small stipends for the teenagers' work with children. And all have lined up summer jobs in child care for their EFP graduates.

videotaping and babysitting

The Boys' Clubs of America (BCA) offers the chance to learn videotaping as well as child care. Teenagers in its three pilot clubs—in El Monte, California; North Little Rock, Arkansas; and Dayton, Ohio—have created video programs on various aspects of childhood, such as life in a day-care center or a children's puppet show. They have made weekly tapings of EFP activities, building up a record and a resource other Boys' Clubs can draw on. The tapes also enable participants to review their own class activities, and members who miss a session to make it up.

A popular activity at all three sites is the Mother's Aide course, which prepares boys to run a paid babysitting service from their Boys' Club. An El Monte videotape shows a group of Mexican-American boys obviously enjoying themselves as they diaper dolls under the supervision of a Red Cross nurse, wrap them in receiving blankets, then cradle them in their arms while they listen to further instructions. Weekly visits to children's agencies and some volunteer work offer other opportunities for career exploration. With so few men on their staffs, Head Start facilities were delighted to have boy volunteer aides.

The 15- to 17-year-old club members who traditionally serve as junior staffers now receive training in child development and care. Volunteer instructors focus on the personal and activity skills the teenagers themselves feel they need most in dealing with younger club members. Teams of two boys work together in the club to apply what they have learned. Child development concepts are also stressed in new training programs for teenage camp counselors and lifeguards. These lifeguards now also give swimming lessons to preschoolers at the club's pool.

Some participants in BCA's program, which it calls Help-a-Kid, have organized Christmas parties for emotionally and physically handicapped children. Others have made Christmas gifts in their club woodshop for children in local hospitals and day-care centers. There are coed rap sessions on changing values in male-female relationships, marriage, and the family. And the El Monte Boys' Club, which has attracted some known members of a powerful youth gang, has pioneered with classes for expectant fathers. Surprisingly, these young men have been quite willing to acknowledge paternity and learn about child development and child care.

"parent awareness"

"There is a burning need to develop job skills," the Salvation Army (SA) has concluded on the basis of experience with "Parent Awareness" classes in seven cities. "The teenager wants to work—is willing to learn—*if* there is a market for his skill. . . . With learning, we have rediscovered, must come doing!"

In its Philadelphia behavior modification program for school drop-outs, SA uses a variety of experiences—EFP is only one of them—in an attempt to catch the interest of young people who are mostly nonreaders. Family life is taught through audio-visual means and community service, such as helping in a day-care or handicapped children's center. Boys in this program continued it in two SA summer camps in 1974; they received intensive tutoring to develop their reading skills. Graduates have opportunities for paid work in several day-care centers and pediatric clinics.

Participants in counselor-in-training courses, also given in two summer camps in 1974, gained practical experience by playing with younger campers, aged five and six. These courses will serve as models for SA camps throughout the country. Booth Hospital in Cleveland, specializing in maternity, gynecology, and pediatrics, offers a six-week program in prenatal, child development, and family life education, with practical demonstrations and opportunities for students to take part in them. Answers to a questionnaire circulated to parents associated with a day-care center helped the Buffalo SA design an after-school parenting course geared to the needs of the center's children and their families. Local public schools provided a teacher and materials. In three cities SA homes for girls with problems have offered parent awareness classes to residents and their boy friends, including practical experience in caring for the babies in the homes. And in Puerto Rico, films on child development are shown to audiences of as many as 250 young people at a time—sometimes out of doors, with the film projected on a blank wall.

open-ended learning

The English and Spanish child development guides that the Girl Scouts of the United States of America prepared for its six regional pilot projects stress "how-to" rather than content—how to launch a program, encourage girls to observe and work with children, collect evidence and use their own experience to draw conclusions, create their own projects, and share experiences and ideas. This emphasis has led to highly diversified programs.

In Buffalo, for example, a mobile unit is staffed by a family life education specialist who helps both Boy and Girl Scout child-care aides relate to their charges. The teenagers come to the mobile unit to learn songs and games suitable for children of different ages, make safe toys, plan projects. They dramatize ways of interacting with toddlers, see films on such topics as a newborn's fears and needs and how a family adapts to a new baby.

In West Virginia, "Preps for Living" gives rural boys and girls, aged 12 to 17, three months of instruction in family relations, family management, and child development before sending them to do field work in day-care centers, church nurseries, kindergartens, and summer camps. Senior Scouts in Northwest Georgia put in 10 hours as interns in a preschool setting, combined with class work, then train Cadettes in child development and family relations. Milwaukee scouts are studying the special developmental problems of physically handicapped children, and comparing them with problems in normal child development. Each scout works with one handicapped child. And under Girl Scout sponsorship, some 70 families from various ethnic, socio-economic, and geographic backgrounds in Johnson County, Kansas, have joined in "laboratory" learning about parenthood and human growth. They are encouraged to practice what they learn at home, and report back their experiences.

exploring child-care careers

In its pilot project—for Explorer Scouts in Bergen County, New Jersey—the Boy Scouts of America has stressed career preparation. Through a career-interest survey in Hackensack High School, new members of both sexes, aged 14 to 21, were recruited into new as well as existing Explorer posts. All students who expressed interest in social work, youth services, teaching, nursing, or psychology, as well as child care, were invited to join. After some preliminary training, these Explorer Scouts served as volunteer interns in agencies concerned with children.

In 1974, under adult supervision, a group of the trainees ran an eight-week summer day camp in the woods for children aged five to seven, where they sharpened their skills in managing children's learning experiences in arts and crafts, games, and swimming. As parents brought or picked up their youngsters, the trainees also got revealing glimpses of parent-child relationships. "Since I started this work," a young woman counselor remarked, "my mother says I behave quite differently with my kid brother. I used to yell at him and his pals when they got into fights. Now I listen, and try to figure out what's going on."

In a series of Explorer seminars, adolescents themselves work up guidelines and supporting materials for peer-to-peer educa-

tion in family life and child development. They conduct tests of their proposed methods, and record reactions to them. Results will go to the national Explorer committee for possible use in other communities.

For Cub Scouts and Scouts, materials on family life are being developed for use in day camps and in merit badge and skill award preparation. A demonstration program will be launched in 24 councils in the spring of 1975.

teenagers train teenagers

Peers working with peers has also been a major EFP tool in the 4-H Clubs, which function under the U.S. Department of Agriculture's Extension Service in the land-grant colleges. Four of these colleges—Texas A&M University and the Universities of Maryland, of Minnesota, and of California at Riverside—were included in the OCD grant.

At the University of Minnesota, 20 high-school juniors and seniors were recruited for paid student coordinator positions and given a one-month crash course in group leadership in child care and development. The students saw movies, tapes, slide shows, and a series of TV programs they were to use in their group work. Then they recruited their own child study groups of 10 to 15 teenagers, and served in pairs as group leaders, while continuing their training. All group participants worked in a child-care setting twice a week for at least an hour.

Two student coordinators reminiscing about their experience convey its flavor:

> When I used to babysit, I never talked to the kids. My job was to take care of them, not let them get hurt. I just got them off to bed, got rid of them.
>
> This program has fun ways of learning like rapping in groups, but it's more for getting into habits, like really listening to people.
>
> And that means listening to kids too. If you remember your own childhood, you know how a child feels. . . .
>
> Remember where you look out of a window and see if you see the same thing another person sees? That was the most valuable thing I learned—that there are different ways of perceiving. Sure, there's nothing wrong with telling them the way you see things, but don't expect them to see your way.
>
> And drawing with the undominant hand—uncoordinated, a bit unsure. That gave me insight into what it feels like to be a child, to try to learn like a child.
>
> Yeah, and creativity—working with someone who encourages you, doesn't stifle you. . . .
>
> The most important thing was to get the group to be open about their feelings, and to do that I had to be open too.

One teenager doing his field work in a Riverside, California, day-care center after school noticed that two little girls were always picked up by their father. Curious, he asked why the mother didn't come for them. "My wife is working at this hour," the father explained, "but I'm free—my work hours are different from hers." "But what do you do with the kids when you get home?" the youth wanted to know. "I play with them a bit, then give them their supper, bathe them, and put them to bed." This gave the young man pause: nothing in his experience had prepared him for such a switch in parental roles.

one year after

Taking the twenty-nine pilot projects of the voluntary organizations as a whole, the majority of participants were 14 to 16 years old; 60 percent were girls, 35 percent were black. Almost all were still in school, and 71 percent planned to go on to two- or four-year colleges. Questionnaires they filled out before entering the EFP program showed that by and large they had a good deal of self-esteem, a positive approach to children, and a "liberated" view of working mothers and the sharing of childrearing tasks by both parents. The boys, however, were somewhat less "liberated" on these issues than the girls.

The majority rated themselves as quite skilled in child care—except in toilet training and care of a sick child. Nevertheless, their responses revealed very little accurate information about children and parenting, and the boys generally knew less than the girls. The most marked areas of ignorance were the physiology of human reproduction, including facts about birth control, prenatal development and the need for prenatal care, and the relationship of a baby's experiences during its first year to its personal and social development.

Preliminary analysis of questionnaires administered at the end of the first year indicated that knowledge of children and parent roles had improved, although perhaps not so much as had been hoped, while positive attitudes had grown even stronger. The majority of program staff and administrators thought that participants would become better parents as a result.

efp on tv

But what about young people who have left school without receiving any parenthood education, and who have no access to a community EFP program? The most likely way to reach them seems to be through educational television.

A dozen or more educational television programs on parenthood are already under way. The Hawaii State Department of Education is producing a 33-program series called "Hand in Hand," for which the University of Hawaii offers course credit.

The Applications Technology Satellite Project broadcasts child-development lore to parents and parents-to-be in remote areas of Alaska and the Rocky Mountains. Together with Chicago public TV station WTTW, the Parents as Resources Project is at work on an EFP series tentatively titled "Look at Me." Under an OE grant, the Purdue Research Foundation of Indiana has been using a television-telephone talk-back system to show parents how to teach their severely handicapped home-bound children. The Children's Television Workshop, in its series "Feeling Good," devotes one show to prenatal care and another to parenting. Perhaps such programs will prompt commercial TV to follow suit.

LAUNCHING AN EFP PROGRAM

The first step in setting up an EFP program is to decide on your goals. Do you want young people to have the knowledge required for making free reproductive choices—to have one or more or no children, or to adopt or give foster care instead of bearing a child? If so, they'll need to know the facts of human reproduction, birth control, and population trends. To weigh the rewards of parenthood against the sacrifice of other options, they need an idea of its costs—physical, emotional, and economic.

Do you want these teenagers to be effective parents from the start? Then they must understand pregnancy, prenatal development and childbirth, prenatal and postnatal care of mothers, the role of maternal nutrition, and how to care for an infant. Boys, too, need this understanding if they are to become good fathers.

Actual experience with young children is crucial. It allows teenagers not only to learn firsthand about stages of children's development and to recognize individual differences among them but also to test their feelings toward children. For a valid career choice, it is the only way. All the skills needed for working with young children—creative play, the use of developmental toys, art, music, and dance—are best learned by doing. In the doing, the student gains a sense of mastery, of being helpful, which fosters self-esteem and further growth. Indeed, this may be EFP's greatest value for adolescents, whose main *current* concern, rightly, is their own development, not parenthood.

Do you think teenagers should learn ways of preventing certain handicaps, and have some experience working with handicapped children? Do you want them to study how family structure and functioning influence child behavior, and to have respect for cultural differences in family patterns? Should they be aware of community resources to help parents, such as prenatal, family planning, and well-baby clinics and child-care programs?

Probably few training programs will touch all these bases or give them equal emphasis. But be aware of all the possibilities.

GETTING STARTED

To offer models from which each local community can select the components best suited to its needs, OE-OCD have issued numerous materials describing parenthood education courses and methods of program management which they feel are worth considering during the planning stage. These materials may be obtained from W. Stanley Kruger, EFP Project, Office of Education, Room 2089-G, 400 Maryland Avenue, S.W., Washington, D.C. 20202. General program materials are also available from Sidney Rosendorf, EFP Project, Division of Public Education, Office of Child Development, P.O. Box 1182, Washington, D.C. 20013.

The Exploring Childhood package includes a manual for school administrators that suggests ways of organizing class and field activities, selecting students and arranging for their transportation, securing parent participation, and finding funds. For further information about the package, including costs, write to Kathleen Horani, Education Development Center, 15 Mifflin Place, Cambridge, Massachusetts 02138.

The Consortium on Early Childbearing and Childrearing designed a set of teaching materials specifically for pregnant adolescents and teenage parents. Their booklets deal in a down-to-earth way with prenatal care, health and hygiene, child development and care, legal concerns, family and other relationships, continuing education and career preparation. Details may be obtained by writing Joseph H. Reid, Child Welfare League of America, 67 Irving Place, New York, New York 10003.

General technical assistance on the design and conduct of school-age parent programs can be secured from Janet Forbush, National Alliance Concerned with School-age Parents, 7315 Wisconsin Avenue, Suite 516E, Washington, D.C. 20014.

School systems interested in career preparation as much as in parenthood education will find useful ideas in *Child Care and Development Occupations: Competency-based Teaching Modules*, financed by OE and available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. School systems may obtain some federal- and state-administered funds for operating EFP programs under various Titles of the Elementary and Secondary Education Act, the Vocational Education Act, the Adult Education Act, the Special Projects Act, and through several research and demonstration programs administered by a number of federal agencies.

Voluntary agencies already involved in EFP have cut costs by making extensive use of volunteer instructors and seeking help from other institutions. In most communities, cooperation among agencies has been excellent; and an EFP program has often enhanced a sponsor's standing with the local United Fund.

Look into the legal requirements your program will have to meet. Check on state and federal regulations covering the licensing of day-care centers. To protect the health of the preschoolers, the high-school students will need advance medical checkups. What is the minimum age for working with children in your state, and who will be legally responsible for students while they are traveling to and from field sites and working there? Legal consultation may be necessary to determine whether existing insurance is adequate for both the high school and the field site.

* * * * * *

Some parents today cannot do well by their children because of inadequate food, housing, and medical care and the lack of child-care services—in short, poverty. A one-year elective EFP course in high school isn't going to change all that. But giving teenagers experience in personal growth and teaching them the basics of good parenting may develop strong child advocates. With their voting leverage, these young people may be able in time to shift our society from patchwork family crisis intervention to the sounder policy of long-term support for all families that would forestall many a crisis. Their own good parenting will help decrease the number of families requiring such crisis intervention. And their own children will have a better than even chance of growing up to their full potential.

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Concerns of Rural Adolescent Parents

VLADIMIR de LISSOVOY

A study of the worries and problems of adolescent parents indicates a need for major changes in national policy in the area of social values.

Studies of marriages among adolescents tend to repeat findings of difficulties in marital competence and the presence of a low degree of marital satisfaction. [5:114-123; 2:6-24; 3:243-254; 14:766-772; 13:14-77; 17:81-87; 11:255-262; 7:245-255] Surveys of high school marriages have noted related demographic data, school policies, and trends. [1:321-324; 4:293-295; 9:374-375; 10:31-35; 15:128-136]

One study has been published that deals specifically with marriage adjustment over time for youngsters married while in high school, and child care by adolescent parents. [7:245-255; 8:22-25]

This report deals with the worries and concerns of these young parents. It is part of a longitudinal study in which 48 couples were systematically followed for a period of 30 to 36 months of their marriage. Results of a measure of marital adjustment, child-rearing practices and attitudes, and related findings are presented elsewhere. This is a clinical appraisal of three themes of concern as voiced by 37 couples in an open-ended interview at the end of the study.

The couples lived in semirural areas or small towns in Pennsylvania and, at the time of marriage, ranged in age from 15 to 18 for girls and 14.5 to 19 for boys. The combined IQ scores on standardized group tests clustered around 102 and the great majority of the young parents came from intact families. The young families were visited

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Vladimir de Lissovoy, Ph.D., is Professor of Child Development and Family Relationships, College of Human Development, Pennsylvania State University, University Park, and Fellow and Clinical Member, American Association of Marriage Counselors. This paper was presented at the CWLA Eastern Regional Conference at Atlantic City, 1974.

Reprinted by the National Alliance Concerned with School-Age Parents from CHILD WELFARE, Vol. LIV, No. 4, March 1975, pp. 167-174, with special permission of the author and publisher (Child Welfare League of America, 67 Irving Place, New York, New York 10003).

periodically over 3 years for the purpose of data collection and, in addition to specific measures, extensive clinical notes were taken during and immediately after each visit. This cannot be regarded as a representative sample of adolescent marriages, and yet their problems and their coping responses have a theme familiar to anyone who has counseled adolescents.

Most children move through definable time periods of growth and social development and assume socioculturally defined roles. Social expectations are not always clear in American society but still follow an age-related pattern. Thus, general notions of behavioral expectations are often indicated by terms such as "junior high age," "a typical teenager," or "high school age kids." Most children tend to move gradually through these developmental periods into adulthood; others have adulthood thrust upon them.

Throughout the visits the investigator was faced with a variety of questions by the young couples, and these were parried with the statement that a discussion would be forthcoming at the end of the study. The couples were encouraged to write down their questions and a promise was made to discuss at length anything that they wished to at that time. The discussion sessions followed the final self-rating of marital adjustment. Notes were taken as close to verbatim as possible, for later analysis. Parental questions or statements were grouped by general content into three thematic areas.

The Economic Struggle

The most prevalent theme voiced can best be termed as "vents of frustration" in the economic struggles of the couples. The husbands were dissatisfied because of a lack of steady employment, an inadequate income and unsatisfactory living arrangements. All of the couples expressed a desire for eventual home ownership, and when asked to describe "ideal housing," the modal answer was a "trailer with some land." The great majority of the couples owned some type of car. These cars were, for the most part, several years old, and a considerable portion of income was spent in maintenance even though much of the repair work was done by the owner. A common lament was that the family was "always in the hole," and virtually all couples owed money to hospitals, physicians, mail order houses and finance companies.

Social Problems

Undoubtedly the effects of marginal subsistence were closely related to the second area prevalent in the discussion. This is best described as "social disenchantment," especially by the young wives.

Virtually all of the young mothers revealed feelings of loneliness, a lack of social life, and the unavailability of former friends. The following excerpt from one mother age 18 was repeated in many ways by other girls: "I don't see anyone my age anymore. We used to have a gang of girls in school and I've always had one or two special girlfriends. No one seems to want to come around anymore. Tom still has his friends, but I guess it's different for girls after you're married."

The men in almost all cases maintained their friends and were active in a variety of "male" social activities such as sports, tinkering with cars, and similar interests. Information volunteered by wives indicated that former peers were discouraged by their parents from socializing with [illegible] married girls, and it also seemed apparent that after the initial [illegible] about the friend who married, the girls who remained single [illegible] in the married peers.

The social activities [illegible] which husbands and wives participated as couples were limited. These included family visitations, church functions and occasional local social events. The usual pattern of visits with the in-laws was for the couples to go to the homes of the wife's or the husband's parents. The grandchildren were brought and were put to bed there. The central activity was the meal, after which the women cleaned up and "visited." The men usually played cards. Church functions for 30 couples included monthly "couples' clubs," "covered-dish" suppers, and occasional money-raising events. Attendance at these events was dependent on the availability of grandmothers (usually the wife's mother) as babysitters. The community social events were popular. The occasional dance at the local fire hall was a highlighted occasion, especially when "live music" was featured.

There was virtually no visitation with other young couples and, although the men did see one another during work or in other male-centered activities, the women did not maintain social contacts, as is so often the case in middle-class "coffee mornings" or "interest groups."

There was no question but that the women in this study were a lonely lot. The husbands, during discussions, evidenced surprise at the loneliness expressed by their wives. This is illustrated by the following conversation:

Mrs. G. (age 18) "He will eat his supper and go to play basketball or something like that."

Mr. G. (age 19) "Well, what do you want me to do? Somebody has to stay with the baby."
Mrs. G. "He's your baby too. It gets lonesome here."
Mr. G. "I didn't know you felt this way."
Mrs. G. "What do you think I do when you're gone?"
Mr. G. "You have the house and the baby and the TV."
Mrs. G. "You can't talk to the baby and the TV all day and all night too."

Some variation of this exchange was repeated consistently, and it was clear that the husbands often were not aware of their wives' predicament.

Handling the Children

The third main theme of concern was focused upon children. During previous visits the investigator was asked many questions in regard to child care and development, and these were postponed as much as possible. The issues raised by most parents were primarily those that had puzzled the parents when they were tested to determine knowledge of basic developmental norms. [8:22-25] In addition, more specific questions were raised such as what to do about thumb sucking, the advisability of a pacifier, how to begin toilet training, and how to teach the child to "mind."

Both parents knew little about normative development and their answers implied unrealistically early developmental and behavioral expectations. [8:22-25] The mothers in this study were an intolerant lot. They were impatient, insensitive and irritable. Only five expressed enjoyment of their offspring in the sense that they spontaneously cuddled or played with them for the sheer joy of playing. Only three of the entire group of mothers attempted to breast-feed their children; considering that this was primarily a rural sample this is a small number. To the question, "Do you think babies are fun to take care of when they are very little or do you think they are most interesting when they are older?" only five mothers indicated that taking care of small babies was fun or evidenced enjoyment and enthusiasm.

Little help was given to the mothers by their physicians. What advice was given came in the form of mimeographed slips indicating formulas for feeding, the times to introduce new varieties of food and food supplements, and the schedules for future visits to the physician. These were given out by the nurses in the doctors' offices.

The three themes of discussion mentioned thus far were spontaneously introduced by the couples. To obtain expressions in the areas of sexual adjustment, this topic was introduced by the investigator. The query used to elicit responses was: "Some of the couples in this study found that sex relations sometimes cause problems. Is there anything you would like to ask about this?" If the couples were reluctant to pursue this topic, they were asked, "Do you find your method of birth control a satisfactory one?" and, "What is your preferred method?"

It was difficult to involve the majority of the couples in a discussion of sexual adjustment. The five couples who spoke willingly were primarily interested in methods of birth control. To the question of birth control method, one wife stated that she took "pills," four couples used "rhythm" and the rest gave answers such as, "I take care of that" (when answered by men), and "I leave it up to him" (when answered by women). Condoms were the most-used birth-control devices and these were obtained from garages, gasoline stations and local barber shops.

Discussion

The major areas of frustrations as depicted by the young parents are not unique to youthful marriages. Many families must resolve problems that arise in economic, social and interpersonal, and child-rearing areas. The vital factor is that many young couples are not prepared to cope with the pressures thrust upon them by the sudden transition to adult responsibility. Early marriage often means an interrupted education and consequently lower earning power. The utter loneliness expressed by the young wives and the continued male-oriented social activities of the young husbands illustrate the lack of maturity of the couples. While the wives were engulfed by the work and responsibility of motherhood, the husbands were still boys in the social sense. The majority of the young husbands in this sample showed little insight in regard to their wives' needs and did little to assist in the common household tasks or the care of children.

At present the Office of Child Development and many social agencies are focusing attention on school-age parents. Nelson, in an excellent review, notes that the early concern for school-age pregnant girls, ". . . has evolved into a larger concern for adolescent parents and their needs." [18] Parenting programs are proliferating throughout the country and there appears to be a renewed emphasis on "family life" and "parenting" courses in high school. (An excellent review of approaches is to be found in *Children Today*, March-April 1973.) The focus on parenting is especially important, for it dramatizes the importance of the family and parenthood as major national resources.

If any impact is to be made in these efforts, major changes must be implemented in the area of social values and in the area of national policy. It is not possible to detail these areas of effort; two examples are suggested.

There is considerable evidence [19; 20:21-27] that the age of menarche is decreasing; likewise, boys are maturing at an earlier age. There is no evidence, however, to indicate that emotional maturity follows the same trend. At this time it is unthinkable in our democratic social milieu to legislate the right of procreation, but it could be possible to undertake a task of massive value orientation. It has been shown that observational learning (modeling and imitation) is an effective means of developing negative or positive behavior. This is especially true of television, as noted by Liebert [16] and his associates; my colleagues Friedrich and Stein [12] have shown how prosocial as well as aggressive behavior can be shaped in this manner. If all social institutions could be involved in a supportive effort to assert parenthood as a high ideal, changes could evolve. This also could have a legal aspect; we legislate the age of driving and the consumption of alcohol. The great majority of parents support these laws; the present impersonality of laws of "bastardy" and "fornication" should be creatively reoriented to make the family of ori[illegible]ation responsible for social-emotional readiness of their offspring for parenthood. The legal aspects are enforceable only with support; but law often leads to a change in value structure. This is a current phenomenon of affirmative action in business, industry and education. On a more mundane level education for parenthood is oriented to "parent-effectiveness" training. If such training is reduced to skills training in mood reflection or in operant technique based on contingency management without an internal value reorganization or the nurturance of affect, it will be superficial at best.

Sometimes societal attitudes are reflected in folk expressions. "Spare the rod and spoil the child" suggests that children are basically evil and that physical punishment is effective in their training. The expression "mothering" connotes nurturance, warmth and tenderness. When one "mothers" one performs a supportive, a continuing, task that is primarily in the affective domain. "Fathering" a child is more likely to be interpreted as an instrumental task of biological procreation. It is time-specific, and does not connote a notion of expressive behavior. The unintended consequences of this differential in popular expressions can well contribute to the identification of the mother as a primary caretaker and contribute to the idea of fatherhood as a tertiary contribution to the life of the offspring.

There is little that can be said favorably about any existing national policy in the area of the family. The family as an institution has little recognition; it has no cabinet officer, nothing comparable to the Atomic Energy or Security and Exchange Commissions. In terms of potential resources of the nation it is the most neglected area of conservation and its welfare is left to the capricious jurisdictional differences of individual states.

The social responsibility for the development of "parental sense" has been eloquently stated by Erik Erikson:

> Healthy personality development depends upon culture's ideals and upon the economic arrangements of the society. In order that most people may develop fully the sense of being a parent, the role of a parent, both mother and father, must be a respected one in society. Giving must rank higher than getting, and loving than being loved. The economy must be such that the future may be depended upon and each person can feel assured that he has a meaningful and respected part to play. Only so can most individuals afford to renounce selfish aims and derive much of their satisfaction from rearing children.

This was stated at the midcentury White House Conference on Children and Youth in 1950. Federal leadership in this regard is yet to emerge. ◆

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SCHOOL-AGE MOTHERS: PROBLEMS, PROGRAMS & POLICY

Lorraine V. Klerman and James F. Jekel
With a foreword by Charles P. Gershenson

Since the mid-1960s comprehensive programs have been developed throughout the U.S. in an effort to provide long-neglected medical, social, and educational services for school-age mothers. Now that the initial excitement has passed, serious questions are being asked by legislators, administrators, and those providing the services: is anything being accomplished? are all who need help being reached? what becomes of these young mothers?

School-Age Mothers attempts to answer these questions on the basis of a five-year study of two comprehensive local service programs for pregnant girls. The study, funded by the Maternal and Child Health Service of the Department of Health, Education, and Welfare, examines the assumptions underlying the programs, describing the young mothers' progress from the time they registered for prenatal care, through delivery, and for two years thereafter.

Particular attention is paid to the health of the mother and her child, and the problems with education, control of fertility, employment status, and financial support. The successes and failures in each area are related to individual characteristics of the mother (age, birthplace, family composition, etc.), her school status at the time she became pregnant, her participation in the program, and her marital status.

The authors conclude that the two programs did accomplish their short range objectives in areas of health and education. Over a longer period, however, the appraisal has not been as favorable. Compared with the hopes of the clinical staffs and the expectations of program planners too many girls left school before graduation, became pregnant again, and made little progress toward economic self-sufficiency.

(over)

This volume illuminates the achievements and disappointments of the two programs. The knowledge gained by the research staff and presented in full detail, amplified by tables and charts, is of vital importance for the planning of services for the school-age mother.

* * *

Lorraine Klerman, Dr. P.H., is associate professor of public health at the Florence Heller Graduate School for Advanced Studies in Social Welfare, Brandeis University. James Jekel, M.D., M.P.H., is associate professor of public health in the Department of Epidemiology and Public Health, Yale Medical School.

xiv, 152 p., tables, charts, bibliog.
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A sexually healthy and mature father can educate his son by example and by understanding the boy's predicament.

FATHER'S ROLE IN SEX EDUCATION OF HIS SON

Warren J. Gadpaille, M.D.

ANY COMPREHENSIVE SEX education of their sons is a task fathers traditionally shun (to say nothing of their terrified avoidance of discussing sexuality with their daughters!). In fact, Mom's nagging Dad into a reluctant and tongue-tied explanation to Junior about the birds and the bees has long been a national joke. But, as will be discussed in detail, Dad cannot fail to accept his role without damaging his sons.

A misleading implication of the title is that perhaps sex education should be a sex-segregated endeavor. This author is firmly of the opinion that sex education should always involve both sexes—both parents freely discussing sexuality with sons and daughters. My conviction is based both upon clinical experience and upon extensive involvement in adult and public school sex education. One of the most manifest failures of our past handling of sexuality has been that men and women, indeed most husbands and wives, have so seldom been able to discuss openly with each other their sexual feelings, expectations, needs, and preferences. Part of the reason for this has been this very kind of segregation: mothers and other women talked, if at all, about female sexual functions and female misconceptions about men, and fathers and other men talked about male sexuality and about their own store of myths about women. But they seldom talked to each other, and it can still astound me, after years of education of countless adults, how many simple and basic things one sex does not know about the other.

With that necessary proviso, however, there is value in talking about sex education between fathers and sons. It is simply that boys and girls—and men and women—are different. This

WARREN J. GADPAILLE
is a psychoanalyst in Englewood, Colorado, a member of the Committee on Adolescence of the Group for the Advancement of Psychiatry, and Vice President of the American Association of Sex Educators and Counselors.

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basic biological fact is frequently obscured by such phenomena as the unisex look, militant "Women's Liberation" movements, and the decline of traditionally masculine occupations, but it is fact nonetheless. And the difference is not solely biological, though subtleties of biology may be the wellspring of distinctions. There is an innate psychological and emotional difference, as well as the inescapable consequences of differing experiences of growing up in one or the other kind of body. These dissimilar private environments—genetic, anatomical, and hormonal—cannot do other than produce, under normal conditions, males and females who differ significantly in their ways of thinking, feeling, and responding.

In addition, our culture still rears boys and girls from birth so differently that research has shown that core gender identity is established unchangeably by about 2½ years of age.

Thus, there will be certain questions and concerns about their sexuality which will be more relevant and imperative among boys, and certain sex educative functions that fathers might ideally be better prepared to fill. But always the opportunity should be sought to bring mothers and daughters into these same discussions.

Basic principles of sex education

Before discussing the special qualities of sex education between fathers and sons, it might be well to talk briefly about sex education in general—what are its basic principles, its goals, and how it can take place.

First and foremost, this author takes the position that sex education is good, and the more complete the better. I reject totally the notion that human sexual relations are enhanced by "mystery" or ignorance. This article is not the appropriate vehicle for extended debate about whether or not sexual information will lead to greater sexual experimentation, or whether or not increased sexual experimentation is in any way harmful. My basic premise is that if one is inevitably going to be affected by something, knowledge about it can never be as dangerous nor as deleteriously misused as can ignorance.

By far the most important principle of sex education is that it does not principally occur in planned, verbal ways, but occurs constantly throughout childhood and later life in every contact with another person. There is, therefore, no choice between providing or not providing sex education, but only the alternatives of how and what will your son learn about sex. Because early childhood is the time when humans are most impressionable and most educable, a boy's parents provide him with an almost indelible impression of what sex is all about. The way a boy's father lives, his degree of self-esteem as a male, the way he treats his wife and children—all these constitute a boy's earliest sex education from his father. This is an ongoing process of growing up as a boy in the presence (or, sometimes, absence) of a particular male model. If a boy's father talks one way about manhood, but conducts himself as a male in contradictory ways, the boy will learn from what he experiences, not from what he is told.

A second principle of sex education recognizes the mutual deception that has been tacitly practiced between children and adults in Western culture for generations. For many emotional reasons, it has been important for adults to repress their own childhood sexuality, and to believe that children are essentially asexual until puberty. Consequently, and in a thoroughly unspoken manner, children and adults have long observed a kind of treaty which may be paraphrased, "If you children will agree to keep your sexuality secret, we adults will agree to pretend that you are not sexual, and will leave you alone."

Recognizing the inaccuracy of the belief in childhood sexual innocence, a third principle affirms the importance of healthy sex education throughout childhood, from earliest infancy onwards. There has been professional difference of opinion about whether there is a time in childhood when the sexual interests and drives become dormant, thus presenting the possibility that sex information during the primary school years may be disruptive. Evidence of sexual interest at these ages casts massive doubt upon such a concept.

A further basic principle, alluded to earlier, is that human sexuality is a recreational activity. Since normal sexuality involves both sexes, it is sheer idiocy not to employ every means possible to increase the ease with which males and females can communicate about sex. Any other approach would stand as a behavioral contradiction of that principle, and would outweigh any verbal persuasion to the contrary.

These basic principles of sex education serve also to enunciate some of the ideal goals. Most simply, sex education should remove ignorance. Whatever decisions young people may make about their sex lives while growing up or in adulthood, such decisions can only be crippled through lack of knowledge.

Constructive sex education would hope to open previously clogged channels of communication between father and son, parent and child generally,

The way a boy's father lives, his self-esteem, and the way he treats his wife and children all constitute a boy's earliest sex education from his father.

and ultimately between males and females. Open communication means a genuine dialogue, not an adult lecturer and child listener, because children have questions and ideas that are worth hearing sometimes. Such a dialogue helps remove the secrecy and taboo from sex, and does away with the negative connotation of silence on the subject. It gives a child a place to come to in security with his concerns, knowing that he won't be turned off with one or another excuse or evasion.

The sum total of such openness in education would be to help teach a child *how* to think, rather than *what* to think. This is as much a general educative goal as a sex educative one.

A final (and ultimate) goal of sex education is to enhance the quality of relationships between men and women, and hence the quality of family life and environment. Most people's concept of sexuality has remained limited to genital sex. This is a consequence of all the [illegible] and avoidant miseducation that has characterized our culture's approach to sexuality. Sex education, whether between father and son or in any other context, ideally aims to place human sexuality in the context of human relationships, not primarily as an end in itself but as a means toward and an expression of the closest and most tender bond between man and woman.

The father's special role

Kirkendall outlined several points in an article directed toward helping parents become better sex educators. He was addressing himself to both parents, but they serve equally as guidelines for fathers. Paraphrased, some of them are:

1. Help expand parents' ideas of sex education so that they recognize that it is more than verbal instruction, that it is not necessarily delicate and touchy, that there is no choice between giving or not giving sexual education, and that it is not necessary to wait for the child to take the initiative.
2. Help relieve parents of their numbing fear of their children's sexuality and of the consequences of sexual involvement.
3. Help parents come to term with their own unresolved sexual concerns and misconceptions.
4. Help parents with their current adult sexual adjustment.

In what ways might these be particularly applied to fathers' special role?

1. Most simply, fathers are men, and their sons will be. As discussed earlier, this living model is the most significant sex education about maleness any son will receive. The father who recognizes that his everyday demeanor is his way of telling his son what it is like to be a man can more healthily fulfill this sex education task—one which no woman can ever do. This is the source of a boy's genuine pride in his sexual identity.

In addition, fathers have some personal, special, subjective knowledge about male sexuality from which their sons can benefit. They have gone through all the phases of development their sons are going through, and have probably experienced most of the questions and concerns that loom so large for their boys. If men can be helped to think of sex as a matter-of-fact part of life, rather than a delicate and explosive subject, they can share their knowledge and experience with their sons when they need it the most and before fears and misconceptions build conflicts. This also implies that the thoughtful father knows when some puzzling feeling or behavior may be occurring or may soon occur, and thus can anticipate his son's need for information and guidance.

The preparation of girls for menarche is a classic example from the opposite sex; those girls who are unprepared or misleadingly prepared suffer needless and damaging distress when they begin suddenly to bleed from so emotionally loaded a location. An analogous experience in pubescent boys, but for which they are seldom given preparation, is spontaneous erection. Most fathers can remember their acute embarrassment when erections occurred unpredictably in school, for example when standing up to answer a question with girls in desks all around. If they think about it, they know [illegible] their boys are getting near this stage of maturation, and [illegible] explain that this will happen to them, [illegible] it is a natural occurrence in all boys because [illegible] growth their bodies are going through and that there is no need for shame or embarrassment. This requires initiating the discussion, not waiting for the boy to ask. By the time spontaneous erections have begun, so that a boy would have reason to ask, he may be ashamed to ask, or already begun to develop unnecessary conflict about it, or endured teasing without any comforting knowledge to help him take it in stride.

2. While we usually think of women in our culture as being those with sexual fears and apprehensions about any sexual involvement by their children, men are not at all immune. Fathers are also likely to regard sex as something they do not want their sons to get involved in "too soon," and may shun giving necessary information in the fear that knowledge will lead to experimentation. They forget or suppress the knowledge that most of them experimented during childhood and adolescence, without disastrous consequences. And they may be insufficiently informed to realize that where there may have been consequences, either to the girl or within themselves, consequences usually sprang from the ignorance or guilt surrounding the sexual behavior, rather than from the behavior itself.

A father may have a genuinely felt moral and religious reason for wishing to restrain the sexual behavior of his sons, and he should make those clear. But in terms of adult consequences, premarital sexual activity has no clearly disruptive effect upon adult sexual and marital function. On the other hand, cross-cultural comparisons reveal a close correlation between sexual freedom in childhood and adolescence and satisfactory sexual function in adulthood. Such analogies do not necessarily apply to all the specific conditions of living in this culture, but they do suggest that fathers—and adults in general—may have exaggerated fears of the consequences of their children's sexual involvements.

3. Fathers could save their sons immeasurable guilt and misery, and sometimes even serious mental illness, if all they did was to accomplish just one specific item of sex education: the reassurance that masturbation is normal and harmless. But this would require that adult men be emotionally secure in this knowledge themselves, and that is seldom the case. Most men were guilty about their own masturbation, and many never really got over that guilt. Their only solution to this irrational guilt is to try to think of it as little as possible. Even if intellectually they know better, their son's masturbation stirs their own past guilts and makes them acutely uncomfortable. They are thus unable to convey the reassurance their sons need, but instead communicate the same disapproving and negative attitudes from which they suffered.

This is but one obvious example of how unresolved sexual conflicts from the past can impair a father's ability to help his son's sexual development in a manner in which he would be uniquely qualified. If he had experienced but overcome those preoccupying guilt fears, he could reassure his son more persuasively than could anyone else. There are countless other areas of sexual conflict which are peculiarly male, and which have a specifically destructive effect upon father-son communication about sex. Fathers need to accept the obligation to try to identify and overcome such areas of misconception.

4. Because of inadequacies and conflicts in their adult sex lives, some men are unable to prepare their sons for a healthy relationship with a woman. Growing boys are exposed to all the common myths (and realities) of adult sexuality. From other boys, they hear the stories of "oversexed" girls whose voracious appetite can wear a man down and ruin his health. They hear about girls who use the helpless male's sexual needs as a means to enslave and control him. These and many other such stories are frightening ideas in anticipation of growing up, and one might expect that a father could easily reassure a boy about them.

For some fathers, however, these myths and fears have come true. Their wives may berate them for being inadequately virile, and may even taunt them with their inability to provide enough sexual gratification. Other wives may use sex coercively, withholding it in order to gain advantages or concessions from her husband in return. Whatever the emotional conflicts which led those men to select and put up with such women, they are surely compromised in their ability to help their sons dismiss similar fearful expectations. In such ways, current adult sexual problems are an interference in any man's capacity to take care of his son's peculiarly male concerns during growing up at least from a store of unimpeachable male experience and assurance.

There is a specific and imperative job which only fathers (or father surrogates) can accomplish in the sexual rearing of their sons. It is associated with all the facets of interaction categorized above, yet merits particular discussion. It is the role, which no other person can fulfill, of protecting a boy from developing homosexual tendencies. In the most extensive research yet conducted in the

The father, as a living model of maleness, is the most significant source of sex education for his son. His everyday behavior communicates what it is like to be a man.

Most fathers can recall their acute embarrassment when erections occurred unpredictably in school, and can explain this normal occurrence to their sons.

Young boys must be assured that sexual myths about girls and women are not true.

psychodynamics of male homosexual development, it was found that the most common family constellation in their histories was the combination of a close-binding and overintimate mother with a detached and hostile or indifferent father. While this was unquestionably the typical family situation, their studies and others revealed, of course, that homosexuality could also proceed from different backgrounds. But one condition was never found in the history of male homosexuals; in a study population now extending to many hundreds, Dr. Irving Bieber has never interviewed a homosexual man who had a close, warm relationship with his father. A psychologically good father appears to be a specific protection against development as a homosexual.

Thus a father's sex educative role might be summed up by saying that it is he who makes it possible for his son to become a sexually normal adult male. A healthy mother can prevent her son's having inappropriate apprehensions about women and can foster healthy attitudes toward maleness, but ideally it requires a man to produce men.

Boys' special sexual concerns

A boy's special needs and concerns will shift as he grows, and a father should try to know what it is his son needs from him at the various stages of his growth. It is likely that in early infancy, father is relatively unimportant to his baby son, unless he takes over much of the mothering functions. I, for one, am opposed to this practice being carried too far; clinical experience suggests that it is unwise to begin an infant's life by blurring male-female distinctions.

Quite soon, however, the little boy discovers his penis and the pleasure of manipulating it. As soon as this occurs, he stands in need of knowing that he is not endangered by such activity. His father should avoid any displeasure or implied threats, and should particularly protect his son against damaging disapproval by mother or other female members of the household.

It is in the toddler stage that most children become consciously aware of anatomical differences between males and females. Boys in our culture seldom have any difficulty in being proud and pleased about their male anatomy; males have traditionally been valued more highly than females, and most fathers convey this kind of self-acceptance quite automatically. But the corollary tendency to undervalue females also begins at this stage, and represents a special need in the sex education of boys. To a child, having something is just naturally better than not having something, be it a piece of candy, a toy, or a penis. Little boys need to be taught that girls are special in their own way, and every bit as good. When children notice and comment upon anatomical differences, it is not too early for a simple explanation that girls have body parts inside that can't be seen and that boys don't have, which will allow them to have babies when they grow up. Such explanations are best given by fathers, because they have penises too, and if they don't think themselves superior it carries more weight. If father's behavior toward his wife and other females, especially daughters, demonstrates that he values them equally as persons, this most vital aspect of sex education will be accomplished at the critical time and with emotional conviction.

Between about 3 and 5 or 6 years of age, the oedipal period, children are experiencing intense curiosity about sex and are making their first definitive efforts at coming to terms with their sexuality. It is at this time especially that boys must not be intimidated about their sexuality. Their interest is often quite open, and includes parents and other adults, playmates, and their own bodies. Purposeful mutual exploratory play burgeons and it provides an ideal opportunity to correct the stereotype that boys are the aggressive, damaging aggressors, and girls are the passive, helpless victims. Boys must begin to learn at this time that their sexual interest is no greater than girls', and that in both of them it is quite normal and natural. They do not harm or victimize girls by expressing it. In view of our cultural stereotype of the sexually aggressive male, this is an emphasis in sex education especially needed by boys, but it may well be that mothers can best convey this particular acceptance of male sexuality. The boy needs also to know quite unequivocally that father does not begrudge or discourage his sexual interests; only thus can he proceed to identify with father with minimal conflict and resentment.

The primary school years have often been thought to be a time of dormancy of sexual interests and activities. Research has rendered this theory untenable and has shown that a great deal of normal sexuality proceeds during this time. In Western middle-class culture, much of this occurs secretly because most children have learned to hide their sexuality from adult censure. But since this is the period when, in play, a boy is most intensely working at identifying with maleness, he must also know that his sexual interest is an accepted part of this masculine identification, not a paradoxically and disturbingly prohibited aspect.

This is a particularly good time to help avoid the development of a destructive dichotomy between

A warm relationship with a psychologically healthy father seems to be the best protection against the development of homosexuality.

Most fathers see their sons nude from time to time and can reassure them of the normalcy of their organs' size and function.

fascinating-dirty-forbidden-mysterious sex, and antiseptic-intellectual-pallid-OK sex. It is in school and grammar school especially that many boys are first intensely exposed to the language of sex, especially that language that has long been socially unacceptable. It is extremely difficult for many fathers and mothers to be at ease with their children with "vulgar" sexual language, even though they may use it freely themselves under certain circumstances, as in jokes or with same-sex friends. But it is to be anticipated that boys will hear or see virtually all the sex words, and will be curious about their meanings. If this language of sex can be "detoxified" by simple explanations of definition and by the offering of alternative terms where they exist, much of the "nasty" secrecy of sex will be nipped in the bud.

The average age of onset of male puberty in the United States is 14 years. During the 2 or 3 years of prepuberty, boys' needs for preparatory sex education increase sharply. They are not as likely to ask open questions at this period as later on, unless they have learned to be unusually free, but much of the biological onslaught of puberty can be softened through prophylactic anticipation by wise fathers. Increased sexual interest, spontaneous erections, "wet dreams," intensified masturbatory activity—all these can be prepared for by discussions ahead of time about what is going to happen to the boy soon, as his body changes into that of a man. Just as important is a boy's need to understand the normal variation and age range of physical development. Pubescence anywhere between 11 or 12 and 16 or 17 is well within normal, and much inner torment can be prevented by telling this to prepubescent boys, and by reassuring them that the age at which they develop the characteristics of adult male bodies has nothing whatsoever to do with how big or manly they will be as adults.

Adolescence

The sex education of adolescents seems to frighten parents more than at any other stage. And it's understandable. Whatever the possible pros or cons of such education earlier, reproduction was impossible and any anticipated dangers were future ones. But for the adolescent, sexual behavior carries all the potential real consequences of adult sexuality, so the fear that knowledge leads to experimentation assumes a new degree of immediacy.

Added to that, parents are forced to the recognition that if they have a normal adolescent, they no longer can command and enforce total obedience. Some youngsters are frankly rebellious against their parents' values, and others, even if they go about it more gently, feel the right to question those values, to ask them to have their validity demonstrated, and to devise new values for themselves if they cannot identify with the old.

Surely it is a sore task to which father is put when he knows that everything he says may be met with skepticism, yet if anything goes "wrong" there can be serious consequences. But the capacity to accept this challenge and to function in spite of the erosion of authority is exactly what the teenage son needs of his father. If the [illegible]ication is available, there are many questions of fact for which adolescent boys need clarification. Most of these questions touch upon or directly involve sexual values; middle-class teenagers, at least, are seldom interested in the pure mechanics of sex. They w[illegible] about standards and responsibilities and relationships, but they don't want to be told what is "right" and what is "wrong."

In an article about the kinds of sex questions asked by teenagers, Dr. Deryk Calderwood reported that in his studies the questions most frequently asked by boys "concerned the male sex organs, masturbation, and homosexual behavior. Intercourse, venereal disease, the meaning of certain slang terms, female sex organs, prostitution, and birth followed in that order." Such a study can serve as a starting place for fathers in talking to their sons, at least by indicating what boys know they want to know. In all the three major categories, their basic concern is to find out whether they are normal, or whether something is wrong with them. Concerns about the male organs are essentially to find out whether their own development—shape, size, curvature, testicular configuration, hair, erections, etc.—is normal. The same is true of masturbation. It is axiomatic that all normal adolescent boys masturbate. It is almost as invariable that they worry about it. Questions about frequency, about whether one can masturbate too much, and about tales of horrid consequences all reflect such guilty worries. Even the great curiosity about homosexuality has roots in personal worries. As yet unsure of their masculinity, and often having experienced some degree of homosexual play during adolescence, boys wonder how they can assess their normalcy, and whether or not homosexuality is curable.

Fathers, if they will make the chance, can furnish simple and generally reassuring information on all these topics of major concern. Most men see their sons nude from time to time, and can assure them of the normalcy of their organs' size and function. When any doubt exists, medical opinion should promptly be sought. Sufficiently healthy and well-informed fathers can unburden their sons' minds about masturbation, and help them know that only the emotions one has about it can cause damage, not the activity itself.

Boys' interest in homosexuality is more difficult for fathers to satisfy because not too many men know much about it. Reassurance, at least, is usually in order. There is rather wide occurrence of some homosexual activity during early adolescence, which rarely presages homosexuality in adulthood.

This author's experience is somewhat different from Calderwood's. There seem to be two other conscious preoccupations of equal intensity among teenage boys. One is intercourse and the other is values. Most boys really have only the vaguest and most incomplete notions about what goes on and how intercourse actually occurs; few books describe it in any exact and extended detail, and descriptions by their friends are mines of misinformation. Even after coital experimentation, their ignorance is abysmal. Adolescent boys want to know what happens in intercourse in no-nonsense detail. Fathers can tell them if they will.

The other striking quality about teenagers' demands for sex information is their insistence on the discussion of values. They want to know how different sexual attitudes affect those who hold them, and what are the personal and emotional consequences of different standards of behavior. They want to know the evidence for the answers we give, and the evidence that our own standards have worked for us and for others. They do not want to have values imposed, but they are vitally concerned with the issue of values.

However, a poll of adolescent boys' conscious questions and concerns is an insufficient criterion of what sex education they need, and what their fathers can supply. Perhaps the most obvious omission would be the importance of knowing as much about girls as about themselves. It might seem obvious that mothers would be the better source, but I am not so sure of this—for one thing, women can be incredibly ignorant of their own sexuality. But even when mother is knowledgeable and open, father can add a unique ingredient. If he has taken the trouble to inform himself, his very participation in teaching his sons about female sexuality imparts a sense of regard and consideration for women's roles and responses. Implicitly, he is teaching that awareness of his partner is integral to healthy sexual relationships.

Also, while teenage boys are spontaneously concerned with values, I would point out that it is fathers who must imbue their sons with the capacity to value their partners. Males have a very long history of sexual selfishness to reverse, and the equal human value of his female partner is an emphasis that cannot be too strongly made.

Finally, fathers are generally considered to be the psychological bridge to the larger cultural milieu. In the traditional family (still the norm in spite of gradual changes), mothers are seen as the principal source of the deepest intrapsychic attitudes, and fathers as representing the outside world. With regard to sexual behavior and attitudes, the culture at large is in constant flux. The insufficiencies of old ways are glaringly apparent, and all kinds of different approaches to sexuality are being tried without any assurances of improvement. Every boy will have to find his place in such a pluralistic society, and fathers can assist this adjustment most effectively. First, they can teach their sons that this situation exists, rather than leading them to believe that what they observed and were taught at home is the one and only best way, agreed upon by anyone whose opinion counts. Second, they can demonstrate through their own tolerance of differences, the ability to live one's own identity without being unduly threatened by the existence of alternative beliefs and practices.

Summary

The foregoing discussion should make several points clear. One is that sex education between father and son should not occur in same-sex isolation, though father's role is essential and unique. Another is that really adequate sex education requires a sexually healthy and mature father who has successfully worked through his own past and present conflicts—"a consummation devoutly to be wished" but seldom achieved. A third is that the older the boy gets, the more difficult the task becomes, partly because of the characteristics of adolescence and partly because of the increasingly complex knowledge and preparation required.

Certainly the majority of fathers could use some assistance in the sex education of their sons. Since "sex education" should really embrace human relationships between men and women throughout life, there is no more difficult area in which to feel competent. For the same reason that doctors do not attempt to operate upon members of their immediate families, often a father is too emotionally involved with his sons to trust his objectivity when emotionally loaded areas like sexuality come up. A son is so often an extension of his father's ego that it is often difficult for Dad to see him as a separate person, living in a different world, and perhaps needing some different ways of coping with his sexuality than Dad has used. Sometimes all communication breaks down because of a man's inability to separate himself emotionally from his son, and this is where some other man may helpfully step into the breach.

Such communication remains a goal, however, and is worth working toward. And experience suggests that it is not totally impossible. Essentially, a man must respect himself as a man so as to provide a basis for his son's self-respect. Such self-esteem would allow him to inform himself as fully as possible, and to express his own attitudes consistently and without embarrassment, but also without being dogmatic. At the same time, he would respect his son's growing individuality so as to want to teach him how to think and to prepare him for independent decision-making, even when those decisions differ from his own. There are, hopefully, better ways to function as sexual humans than have generally characterized our culture. Perhaps fathers can help their sons to find them, rather than sentence them to helpless repetition of our dreary sexual history.

Reprinted from

contemporary ob/gyn

A McGraw-Hill Publication

June 1975

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Pregnancy in adolescents: scope of the problem

GABRIEL STICKLE, M.A. / PAUL MA, M.Sc.

The subject of childbearing in adolescence covers a broad range of issues extending across the academic disciplines and involving the interest and expertise of a number of professions. Klerman and Jekel[1] have reviewed the reasons pregnancy in the school-age girl may be considered a problem. To some the problem is primarily medical, involving differential rates of obstetric complications and of perinatal morbidity and mortality. Others regard early pregnancy as a deviation from dominant social norms of our time: childbearing by mature, married women who have completed their formal education. Still others focus on the economic aspects of early childbearing, which often results in dependence of the teen-ager on parental or public assistance; this is an especially pertinent point if the father is absent, very young, or unable to earn a living.

Finally, for some, early pregnancy is a moral issue, though few will confess to personal prejudice in the matter. The incidence of early childbearing is higher in poor blacks and other minority populations, in part at least because these young people are less likely to "prevent" or to "manage" the problems of an unwanted pregnancy through means that are more readily available and acceptable to middle-class youngsters.

Trends Since 1950

Regardless of how we define the nature of the problem, however, we cannot deal with it intelligently in the absence of reliable measures of its size, composition, and evolution. As shown in Figure 1 (page 87), the annual number of live births in the U.S. increased almost without interruption from about 3.6 million in 1950 to 4.3 million in 1960, a rise of 20%. All maternal age groups contributed to that uptrend, but the most pronounced increases occurred among teen-agers, with the number of births to mothers under 16 years of age rising from 19,000 to 26,000, or 37%; for mothers aged 16 and 17, from 113,000 to 163,000, or 44%; and for women aged 18 and 19 from 293,000 to 406,000, or 39%. More moderate gains, of 17% for women in the twenties and thirties and 21% for women aged 40 and over, were recorded.

Since 1961, the annual totals have declined continuously, except for minor increases in 1969 and 1970. The most dramatic reductions have been recorded in the 30-to-39 age group, which decreased by 53% from 1.05 million in 1960 to 497,000 in 1973, and in the group aged 40 and over, which declined by 65% from 97,000 to 34,000. Births to mothers aged 20 to 29 also followed a downward (though less marked) trend from 2.5 million in 1960 to 2.0 million in 1973, representing a decrease of 21%.

Births to women aged 18 and 19 increased by 4% between 1960 and 1970 but have declined by 12% since then. In sharp contrast, the number of mothers aged 16 and 17 rose by one-fourth between 1960 and 1973, from 163,000 to 204,000, while births to mothers under 16 climbed by 80%, from 26,000 to 48,000. There are indications, however, that the upward trend for these youngest maternal ages is becoming more and more gradual.

The number of babies born each year to mothers of a specific age group is the product of the number of women in that age group and their fertility rate. The population of a given age varies from year to year largely in accordance with fluctuations in the number of births in earlier years. Fertility rates are influenced by a variety of biologic and social factors, among which are marriage and divorce rates, contraceptive practices, and economic circumstances.

Figure 2 depicts the history of age-specific fertility rates in the U.S. since 1950, together with our projections, based on current trends, to the year 1980. When these fertility rates for 1980 are applied to the projected female population, they yield estimates of the number of live births by maternal age group in that year. On this basis, we anticipate about 47,000 births to girls under 16 in 1980, about the same number as in 1973; 197,000 to mothers aged 16 and 17, which is 3% less than in 1973; and some [illegible] to women aged 18 and 19, about 5% lower than in 1973. The number of births to women aged 20 and over is expected to decline by 7% between 1973 and 1980.

Figure 3 shows that the proportion of teen-age mothers has increased from only 12% in 1950 to nearly 20% in 1973. That percentage is expected to exceed 20 in 1980. Between 1950 and 1973 the proportion of births to girls aged 16 and 17 has risen from a little more than 4% to 6.3% with a further increase to 6.7% indicated by 1980. The increase documented for mothers aged 18 and 19 has been more gradual, from slightly more than 8% in 1950 to nearly 12% in 1973 and slightly higher in 1980.

Virtually all mothers under 16 are primiparas (Fig. 4), but significant proportions of older teen-agers are having second or subsequent births. In 1973, 22% of the births to women aged 18 and 19 were second births and [illegible] were third or subsequent ones. For mothers aged 16 and 17, the corresponding proportions were [illegible] for second births and [illegible] for third or subsequent [illegible]

Pregnancy Outcome and Maternal Age

The relationship between maternal age and the outcome of pregnancy may be considered in terms of such variables as birthweight, infant survival, maternal complications, and long-term developmental consequences for the child. Statistical comparisons must be made with caution, however, since, obviously, the effects of maternal age cannot be isolated from the effects of other social and biologic factors associated with maternal age.

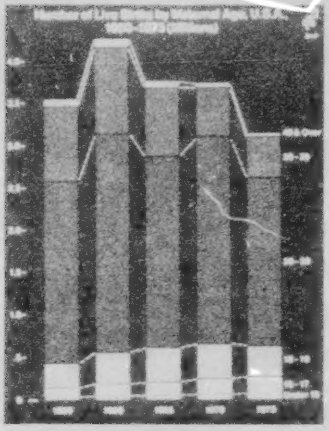
Figure 5 shows the percentage of newborn infants in 1973 weighing 2,500 gm or less and 2,000 gm or less, by maternal age group. The highest ratios—15.7% at or under 2,500 gm and 6.6% at or under 2,000 gm—are found among infants born to mothers under age 15. The corresponding ratios for mothers aged 15 to 19 are lower but not as low as for women aged 20 to 29. In this last age group, less than 6.8% of the newborns weighed 2,500 gm or less and only 2.3% weighed 2,000 gm or less. Beyond this age, the incidence of low birthweight increases significantly but does not reach the levels documented in infants of teen-age mothers.

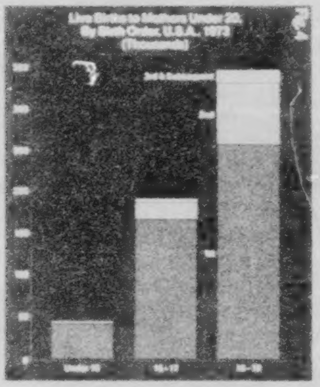
These variations are even more dramatic when considered by race, as demonstrated in Figure 6, page 88, based on data for 1968. Low-birthweight ratios for both whites and nonwhites were highest for girls under 15 and the lowest for women in their late twenties. A secondary peak is evident for white mothers aged 40 to 44 and for nonwhite mothers aged 35 to 39. For reasons not readily apparent, the incidence of low birthweight tends to decline once more among women at the extreme upper range of the reproductive years, a little earlier for nonwhites than for whites. Among girls under 15, [illegible] of nonwhite newborns weighed 2,500 gm or less as compared with about 13% of white newborns. This racial differential was larger than that for women in every older age group except those aged 40 to 44.

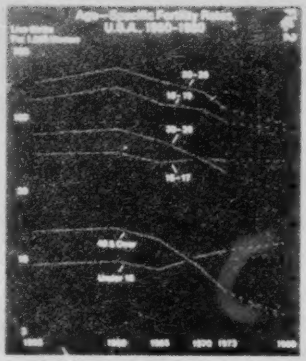
The outcome of pregnancy also may be measured in terms of survival of the newborn. Chase and her associates, reporting on

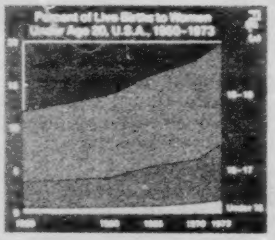
Mr. Stickle is vice president for Program, The National Foundation–March of Dimes.

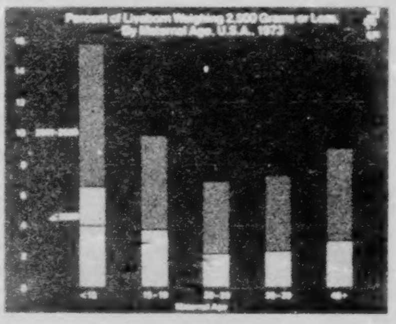
Mr. Ma is staff statistician for The National Foundation–March of Dimes.


Number of Live Births by Maternal Age, U.S.A., 1960–1973 (Millions)
40 & Over
35–39
20–29
18–19
15–17
Under 15
1960
1965
1970
1973


Live Births to Mothers Under 20, By Birth Order, U.S.A., 1973 (Thousands)
2nd
Under 15
15–17
18–19


Age-Specific Fertility Rates, U.S.A., 1950–1980
Live Births Per 1,000 Women
20–29
18–19
30–39
15–17
40 & Over
Under 15
1950
1960
1965
1970
1973
1980


Percent of Live Births to Women Under Age 20, U.S.A., 1960–1973
18–19
15–17
Under 15
1960
1970
1973


Percent of Liveborn Weighing 2,500 Grams or Less, By Maternal Age, U.S.A., 1973
<15
15–19
20–29
30–39
40+
Maternal Age

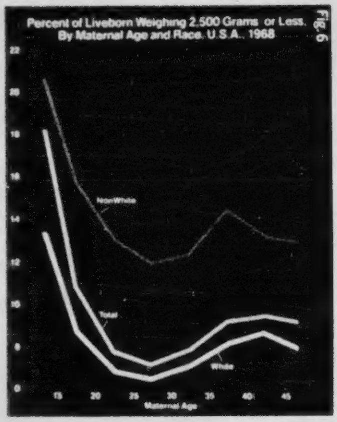


Fig 6

a study of a cohort of 142,000 live births in New York City, found that infant mortality rates vary by maternal age in much the same manner as low-birthweight rates. The rate for the youngest maternal age group is more than twice as high as for women aged 25 to 34. Even among the more mature teenage mothers, the infant mortality rate is higher than in any older age group.

Maternal complications are encountered frequently in very young women. Semmens found that the incidence both of prolonged and of precipitate labor among teen-age primiparas tended to vary inversely with age (Fig 7). Fifteen per cent of the patients under 15 years of age experienced less than three hours of labor and 20% between 24 and 47 hours. The corresponding percentages for 19-year-old women were 4.9 and 6.5.

Stevenson's summary of six studies covering 3,430 women aged 17 and younger indicates increased incidence of toxemia, hypertension in whites and anemia in blacks, postpartum infection and hemorrhage, and prolonged or precipitate labor. Baird and associates found that the rate of stillbirths attributed to preeclampsia was 7.5 per 1,000 primiparas under 20 years of age, as compared with 2.8 per 1,000 primiparas aged 20 to 24.

A total of 477 maternal deaths was reported in the U.S. in 1978, a rate of 15.2 per 100,000 live births. Although the numbers for some age groups are quite small, there is a pronounced tendency toward higher rates at either end of the maternal age scale. As shown in Figure 8, the maternal mortality rate decreases from 47 for women under 15 years of age to 9 for women aged 20 to 24. Thereafter the rate is shown in the chart to increase continuously with advancing maternal age.

Pregnancy outcome may also be considered in terms of the long-range development of the child. There are few reliable measures of such development in which parental age has been considered. Recently Roberts and Engel, reporting on the examination of a national sample of children aged six to 11, found a striking relationship between the children's intelligence scores and the age of their parents (Fig 9). The mean deviation IQ (from the Combined Wechsler Intelligence Scale for Children) was lowest for children whose mothers and fathers were at either extreme of reproductive age and highest for those whose mothers and fathers were in the middle of the reproductive years at the time of birth. The relationship is worth noting even though the associative mechanisms are obscured by the variety of biologic, familial, and social factors that may be involved.

Social and Medical Risks

Having reviewed the unique characteristics of pregnancy in the adolescent, it is important to point out why such pregnancies, in many critical respects, are very much like those at older maternal ages. Indeed, from a public health viewpoint, the similarities may be as important as the differences. For in seeking to improve the outcome of early pregnancy, we need to apply many of the principles that have been developed to im-

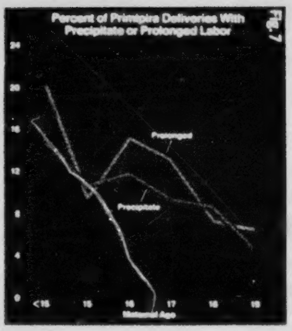


Fig. 7

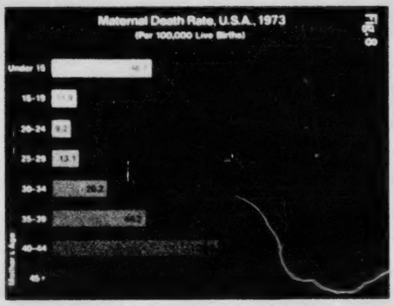


Fig. 8

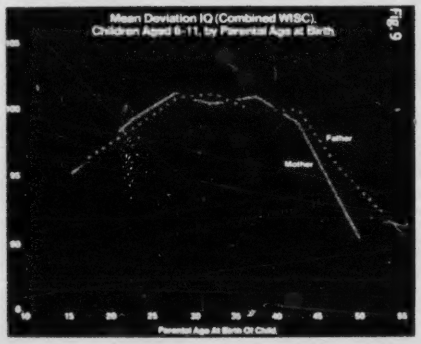


Fig. 9

[illegible] newborn health for all.

[illegible]

[illegible]

[illegible] for those at medical [illegible] for pregnancies at both [illegible] infant death [illegible] per 1000 for [illegible]

[illegible]

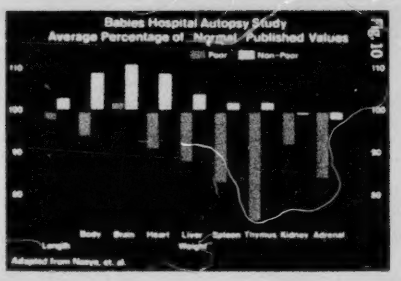


Fig. 10

Adapted from Naeye, et. al.

according to the trimester in which the mother first received medical attention and by the number of prenatal visits made during the entire pregnancy. Women who seek prenatal care early and often tend to have certain common social characteristics that may also favorably influence the outcome of their pregnancies. Nevertheless, the data strongly suggest the value of early and frequent prenatal visits. Patients receiving care in the first trimester were associated with an infant death rate of 8.6 per 1,000. Those first receiving care in the second trimester had an infant mortality rate of 9.7, and those not seen by a physician until delivered and those regarding whom data were not available, a rate of 16.1. Within each of these categories, it was found that the larger the number of visits, the lower the infant death rate. The risk of infant death was more than twice as high for mothers who had four or fewer visits as for mothers who had nine or more visits.

Perhaps the most significant finding of the New York City study was that those mothers at the highest risk seem to have received the least adequate medical care. As documented in the Chase report, nearly 30% of the white native-born mothers were at either social or medical risk. Almost 17 of every 1,000 babies born to them died in the first year of life, and 9% weighed 2,500 gm or less at birth. In contrast, [illegible] of the Puerto Rican women were at social or medical risk, the infant death rate was 25 per 1,000, and over 10% of their newborns weighed 2,500 gm or less. An even higher percentage ([illegible]) of black women were at social or medical risk; 31 of every 1,000 black babies died as infants, and nearly 16% weighed 2,500 gm or less.

Since the great majority of the medical risks and all the social risks can be identified at a first prenatal visit, one would expect that to achieve a significant reduction in the incidence of low birthweight and infant mortality would require that those at highest risk receive the earliest and the highest quality medical care. In the Chase study that was not found to be the case, however.

Chase reported that 52% of the white women, 12% of the Puerto Rican women, and 11% of the black women received medical attention during the first trimester. More than 57% of the white women but only 30% of the Puerto Ricans and [illegible] of the blacks had as many as nine prenatal visits. Nearly 84% of the whites but only 14% of the Puerto Ricans and 17% of the blacks were delivered on private services. These measures of the adequacy of medical service admittedly are crude. Some women may receive better care as ward patients than as private patients. The data do suggest, however, a gross misallocation of health resources, since those at greatest risk apparently received the least and the poorest service. Indeed, if all the women in the study had had the pregnancy outcome of those receiving adequate health services, New York City's infant mortality rate presumably could have been reduced by 33% in the period under study.

Although there are hazards in generalizing these data to other parts of the country, there are many other metropolitan areas with comparable problems of poverty, education, and medical care. Applying the findings to the entire country would suggest, therefore, that high-quality medical care alone could have reduced our 1972 infant mortality rate from 18.5 per 1,000 to 12.3. That would have saved no fewer than 22,000 babies and would have moved the U.S. infant survival rate from 15th to sixth place among nations.

But adequate medical care is not delivered in a social vacuum. In New York City, as elsewhere, it is unlikely that the quality of perinatal health care for any maternal age group can be improved substantially without raising the socioeconomic status of those at highest risk.

Certainly the deepening economic crisis we now see in our country should sensitize professionals, consumers, and politicians alike to the influence of economic conditions on maternal, fetal, and newborn health. Brenner[11] has found that economic fluctuations have played a significant role in infant mortality in the U.S. in the past 45 years.

Naeye, working with data from autopsies of stillborn and newborn infants who had died from causes other than those associated with structural defects or maternal complications, categorized these infants according to yearly family income. As shown in Figure 10, the dead babies whose families fell below the poverty line, as defined by the Social Security Administration, averaged 94% of normal body weight as compared with 101% of normal for those whose family earnings exceeded the poverty level. Body length and all organ weights were smaller in infants of poor families. Naeye believes that the abnormally low weight of the organs of the babies of poor families is characteristic of undernutrition. Their thymuses, spleens, livers, and adrenal glands were more undergrown than their kidneys, hearts, or skeletons. This growth pattern has been repeatedly observed in children and young animals with chronic malnutrition. Also found in the newborn and stillborn infants of the poor were microscopic abnormalities that are characteristic of undernutrition. These findings include subnormal amounts of cytoplasm in the fat cells and muscle fibers.

Conclusions

The pregnant adolescent is subject to all of the medical and social risks that confront the more mature pregnant woman. But the adolescent is especially vulnerable to the risk factors because of a variety of circumstances characteristic of her age group: physiologic immaturity, economic dependency, poor nutritional status, lack of education, inadequate medical care, political ineffectiveness, and, in some cases, racial discrimination. These problems cannot be solved in isolation from the broader issues of maternal and newborn health care that affect Americans of all ages.

The quality of human reproduction is the over-all result of many interacting biologic and social factors that influence and are, in turn, influenced by the amount and kind of preconception, obstetric, and neonatal care that is made available. Patients usually can be classified early in their pregnancies according to degree of risk so that appropriate medical, social, and nutritional measures can be instituted.

Certainly there is a need today for broader recognition of the various risk factors as they bear upon perinatal health at the community level. Professionals and lay people alike need to find ways of generating an informed and responsible demand for the allocation of both public and private resources so as to overcome the obstacles to the best possible maternal, fetal, and newborn care, for pregnancy in the adolescent as for all pregnancies, whether these obstacles are technical or institutional.

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FEATURE

Reprinted from

FAMILY PLANNING/ POPULATION REPORTER

Volume 4, Number 1, February 1975
pp. 10-13

1666 K Street, N.W.
Washington, D.C. 20006

Discrimination Persists Against Pregnant Students Remaining in School

By Linda Ambrose

While courts, legislators, insurance companies and employers increasingly recognize women's fertility-related rights, policies and attitudes toward adolescent pregnancy frequently remain discriminatory or, at best, indifferent. Teenage pregnancy is often accompanied by premature, frequently unstable marriages, physical risks to the mother and infant, personal and family tension, and other problems[1] which school-age girls are seldom equipped to fully resolve. Pregnancy is disproportionately unplanned and unwanted among adolescents.[2] For some, abortion is a remedial solution, but for others, it is inaccessible, simply not recognized as an alternative or, for a variety of reasons, viewed as less acceptable than childbirth. In spite of the increased availability of abortion and birth control services, 12,861 girls under 15 and 604,096 girls between 15 and 19 gave birth in 1973.[3]

These pregnancies, in addition to other health and social risks, represented a substantial threat to the continued education of the mother. Traditionally, most pregnant students have been expelled or quietly excluded from school.[4] There is substantial evidence that these discriminatory traditions persist. In a recent study of the exclusion of children from school in America, 5.8 percent of all children between 6 and 17 years old who were not in school gave pregnancy as the reason for nonattendance, 2.4 percent gave marriage as the reason, and 10.9 percent had been suspended or expelled.[5] Pregnancy undoubtedly was a precipitating factor in many of the marriages, suspensions or expulsions. The findings, presented for both boys and girls, imply that among female students old enough to become pregnant, the proportion of exclusions related to pregnancy is much higher than the 5.8 percent "pregnancy" figure.

In Montgomery, Alabama's "School-Leaver Report" for 1972-73, 62 percent of the female dropouts cited pregnancy as a reason for leaving school.[6] In South Carolina, the state superintendent of education said 19 percent of the state's school dropouts gave marriage or pregnancy as their reason for leaving school.[7]

With inadequate education compounding other strains of early parenthood, it hardly seems reasonable to expect the young mother's future to be undamaged. In addition to direct economic and social effects, school withdrawal is also associated with repeat pregnancies and larger than average families.[8] A study of unwed mothers in Connecticut found that school status and participation in a postpartum program for teenage mothers were the most important predictors of oral contraceptive use and avoidance of subsequent pregnancy.[9] "In effect, the opportunity to pursue their education gives [unwed mothers] a hope for the future so that they are less likely to fall into the snare of repeat illegitimate births," a federal judge noted in a 1969 Mississippi decision involving unwed pregnancy.[10]

Family planning providers have direct reason, therefore, to be concerned about school policies on student pregnancy. Those policies are usually left to local regulations[11] or to the practices of individual principals, teachers and counselors. The report *Children Out of School in America* concluded that most pregnancy-related exclusions result from informal advice in favor of "voluntary withdrawal" rather than from overt policies.[12] The educators' attitudes and recommendations "are enough to convince most [pregnant students] they aren't wanted," the study said.

Consequently, the elimination of discriminatory patterns and the initiation of uniformly adequate supportive services in at least 15,450 different school districts[13] will be a long, difficult process. But the common law and recent federal legislation offer pregnant teenagers and their advocates leverage for the modernization of local school policies and practices on teenage pregnancy.

Judicial Recognition of Pregnant Students' Rights

The U.S. Supreme Court said in the historic 1954 *Brown* decision:

> In these days, it is doubtful that any child may reasonably be expected to succeed in life if . . . denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.[14]

As recently as mid-January, the Supreme Court affirmed its support for

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Linda Ambrose is associate editor of *Family Planning/Population Reporter*.

educational rights of students who had been suspended from school for less than 10 days on grounds of misconduct.[15] When public education is offered to school-age youngsters generally, the Court said in a 5-4 decision, the right to an education cannot be withdrawn on grounds of misconduct without fair procedures to determine if misconduct occurred. In a footnote to their decision,[16] the majority noted that since 1961, lower federal courts have uniformly held that the due process clause is applicable to public schools seeking to expel a student.

The Supreme Court has never directly reviewed rights of pregnant students, but several lower courts have found them protected by legislative and constitutional provisions. In 1929 the Supreme Court of Kansas ordered the readmission of a student who became pregnant and later married.[17] The court said exclusion from school was justified under state law only for persons "undesirable from either a physical malady or moral obliquy." The evidence was insufficient, the court found, to warrant expulsion. In 1966, a Texas court found that a school district was unjustified in excluding a married teenage mother from regular high school classes.[18]

Unwed mothers in Mississippi have pursued litigation several times to gain readmission to school. In *Perry v. Grenada*,[19] a federal court found that exclusions solely on the basis of unwed motherhood was a violation of equal protection under the U.S. Constitution. The court ordered the enrollment of two unwed mothers unless the school board determined during a hearing that the young mothers were "so lacking in moral character that their presence in the schools will taint the education of other students." Three years later, in 1972, the same judge enjoined another school district from enforcing a regulation against enrollment of unwed mothers.[20] The second school district had been subject to previous litigation[21] resulting in the readmission of other unwed mothers, and the 1972 decision reflected the judge's frustration in attempting to uphold the young students' rights. "It is difficult for the court to understand," Judge Orma R. Smith wrote, "why ... the school board held the opinion that the board was at liberty to enforce the unwed mother policy."

In a 1971 Massachusetts case involving an unmarried pregnant student banned from high school during regular school hours, a federal court ruled that "the right to receive a public school education is a basic personal right or liberty. Consequently, the burden of justifying any school rule or regulation limiting or terminating that right is on the school authorities."[22] The court found that school officials had not shown that the pregnant girl's school attendance would endanger her health, cause a disruption or otherwise impair the educational process. There was "no valid educational or other reason to justify her segregation and to require her to receive a type of educational treatment which is not the equal of that given to all others in her class."

The *American School Board Journal* analyzed these legal precedents and warned, "Judges have ruled that doctors – not school boards – can best decide if school is a health hazard for a pregnant girl, and although it may be admirable and necessary for school boards to discourage student marriages and pregnancies, the board may not use pregnant students as prototypes for punishment."[23]

Another analysis of legislation and court decisions on pregnant students concluded that "liberalization of policies providing for the rights of pregnant students is virtually mandated for avoidance of unnecessary litigation."[24]

A 1973 study sponsored by the Mississippi Governor's Office of Education and Training reviewed legislation and the common law and recommended that school boards and school administrators be prohibited by law or regulation from expelling students or excluding them from participation in extracurricular activities on the basis of pregnancy.[25]

Federal Law Recognizing the Rights of Pregnant Students

Title IX of the Education Amendments of 1972 mandates that sex discrimination be eliminated in federally assisted education programs.[26] Educational institutions which receive federal aid through grants, loans or contracts (other than a contract of insurance or guaranty) must comply with Title IX. Final regulations for implementing the amendments had not been issued by early February. Proposed regulations were published in June 1974,[27] however, and a section dealing specifically with pregnant students' rights did not attract controversy or vocal opposition during a four-month comment period. That section would prohibit schools from denying a student the opportunity to participate in any class or extracurricular activity because of "pregnancy, childbirth, false pregnancy, miscarriage, abortion or recovery therefrom." Although there is no bar to provision of separate classes or programs for pregnant students, no student could be required to enroll in them or to be tutored at home. Other forms of discrimination would also be prohibited:

- Excluding pregnant students any mandatory period of time.
- Requiring pregnant students to have a doctor's certificate to remain in or return to school without making a similar requirement of students with other temporary disabilities.
- Requiring notification of the expected date of childbirth without requiring students with other temporary disabilities to notify the school of the planned dates for surgery or absence.
- Treating pregnancy differently according to the marital status of the student.

Title IX is enforced by the Office for Civil Rights of DHEW.[28] If an institution does not comply with the law, the federal government may delay awards of money, revoke current awards or disqualify the school from eligibility for future awards. In addition, the Department of Justice may also bring suit at DHEW's request. Individuals and organizations can challenge any practice or policy which they believe discriminates on the basis of sex or pregnancy by writing a letter of complaint to the Secretary of DHEW, either on their own behalf or on behalf of others. If the government finds discrimination in violation of Title IX, the statute requires that it attempt to resolve the problem through informal conciliation and persuasion. If necessary, DHEW may either hold formal hearings or refer the case to the Department of Justice for judicial action.[29]

Since the educational problems of pregnant students often result from subtle, unofficial discrimination, it is significant that institutions are in violation of Title IX when *sex-neutral policies and procedures are not implemented*. In other words, if a school has a nondiscriminatory official written policy but in practice follows traditional patterns of discrimination, it is in violation of Title IX.

Affirmative Action

In the same way that institutions may take affirmative action to overcome racial discrimination, Title IX permits affirmative action to remedy discrimination based on sex.

Since society and schools assign most of the stigma of unwed or very early parenthood to the female, and since postdelivery child care responsibilities routinely fall to the female (at least to those who decide to keep their children), it appears that affirmative action is appropriate and probably essential for pregnant girls. If young mothers are to have the same opportunity for education as young fathers, they need help—contraceptive care, day care assistance, counseling on welfare programs, sex education and other services which the schools could coordinate and, in some cases, provide.

During the last 15 years, an increasing number of school districts (usually larger, urban districts) have undertaken a kind of affirmative action by establishing special programs for pregnant students. These programs don't begin to reach students in all school districts, however.[30] Furthermore, many of them continue to isolate student pregnancy by assigning participants to separate facilities. Some have admission requirements which restrict attendance according to age, positive assessment of motivation, previous pregnancy and school attendance histories, or various other criteria.[31] By providing small classes, intensive counseling and sympathetic teachers, some programs may offer pregnant students their first supportive educational atmosphere. According to one study of special programs, "Some administrators have voiced concern that special programs are so attractive that pregnancy becomes a decided advantage and report that the girls are aware of this irony."[32]

Although most programs define their services as "comprehensive," the programs do *not* necessarily offer birth control information or sex education. Participants in a 1968 conference on adolescent pregnancy agreed that contraceptive education and postdelivery counseling were needed, but they concluded that contraception was "a subject of controversy, especially if the program is under school auspices."[33]

A later study of services in 130 cities of over 100,000 population found that reluctance to provide sex education and birth control to pregnant adolescents persisted.[34] Only 65 cities had special programs which included contraceptive services; 83 cities had programs that included sex education; 33 offered infant day care as part of a special program. The lack of emphasis on contraception and sex education is further demonstrated by a ranking of the services most frequently offered in large city programs: 12 other services (ranging from counseling to nutrition and home visiting programs) had higher priority than contraception; seven had higher priority than sex education.

Although some school districts are making a substantial effort to provide young mothers with equal educational opportunities, national dropout statistics suggest that most schools continue to discourage or prevent the education of pregnant students and adolescent mothers. Supportive services are even less common. Those which are offered may isolate the student or indirectly miseducate her about the rewards of pregnancy. Even when the need is undeniable, many school districts offer neither information nor services that would permit responsible decision-making about future fertility.

The common law and federal antidiscrimination legislation appear to be on the side of pregnant adolescents and teenage mothers. But educational policies and practices are determined by literally thousands of school boards and school officials. Consequently, the elimination of discrimination and indifference will require long-term attention on a number of fronts. These include persistent local surveillance of educational practices and school exclusion trends; effective state regulation of schools' pregnancy-related policies; and strong federal enforcement of regulations prohibiting sex discrimination in the schools. Furthermore, it appears likely that official action will require intervention from individuals and groups committed to the rights of women and children and to the provision of fertility-related services. Without citizen advocacy, it is likely that past patterns of overlooking or pushing aside the problems of teenage pregnancy will persist.

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The
Alan
Guttmacher
Institute

The Research and Development
Division of Planned Parenthood
Federation of America, Inc.

Formerly the
Center for Family Planning
Program Development

Suite 905
1666 K Street N.W.
Washington D.C. 20006
Telephone (202) 296-4012

August 1, 1975

President Ford signed the Title IX regulations prohibiting sex discrimination in the schools May 27 and they became effective July 21.

The regulations have the force of law and apply to all educational institutions receiving federal aid.

Various sections of the final regulations may be applied to pregnant students and young parents, but Section 86.40 (see below) deals specifically with their rights. Generally, the regulations require schools to treat "pregnancy, childbirth, false pregnancy, termination of pregnancy or recovery therefrom" like other conditions which temporarily interfere with students' physical capacities. Separate instruction for pregnant students is permissible *if* participation in the program is voluntary and *if* instruction offered in the program is comparable to that offered to nonpregnant students. If the school does not maintain a temporary disability policy for its students or if a pregnant student does not qualify for leave under the general rule, pregnancy and related conditions must be accepted as a justification for a medical leave of absence and the student must be reinstated following the leave without adverse status. Other provisions of Section 86.40 were, for the most part, included in the proposed regulations.

The final regulations require each institution to conduct an initial self-evaluation in order to identify and eliminate areas of sex discrimination. Schools and colleges must also establish formal grievance procedures for persons who feel sex discrimination has occurred. Enforcement procedures are incorporated in the regulations by reference; if adopted in final form, they would provide for compliance reviews, administrative hearings and appeal rights before and after the discontinuation of federal assistance.

The grievance and enforcement procedures have been criticized by feminist and civil rights groups who fear they could make every complaint costly, time-consuming and potentially ineffective.

Questions concerning the application of the regulations should be addressed to regional headquarters of the Office of Civil Rights in Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, Denver, San Francisco, Seattle and Kansas City, Missouri.

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§ 86.40 Marital or parental status.

(a) *Status generally.* A recipient shall not apply any rule concerning a student's actual or potential parental, family, or marital status which treats students differently on the basis of sex.

(b) *Pregnancy and related conditions.* (1) A recipient shall not discriminate against any student, or exclude any student from its education program or activity, including any class or extracurricular activity, on the basis of such student's pregnancy, childbirth, false pregnancy, termination of pregnancy or recovery therefrom, unless the student requests voluntarily to participate in a separate portion of the program or activity of the recipient.

(2) A recipient may require such a student to obtain the certification of a physician that the student is physically and emotionally able to continue participation in the normal education program or activity so long as such a certification is required of all students for other physical or emotional conditions requiring the attention of a physician.

(3) A recipient which operates a portion of its education program or activity separately for pregnant students, admittance to which is completely voluntary on the part of the student as provided in paragraph (b)(1) of this section shall ensure that the instructional program in the separate program is comparable to that offered to non-pregnant students.

(4) A recipient shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy and recovery therefrom in the same manner and under the same policies as any other temporary disability with respect to any medical or hospital benefit, service, plan or policy which such recipient administers, operates, offers, or participates in with respect to students admitted to the recipient's educational program or activity.

(5) In the case of a recipient which does not maintain a leave policy for its students, or in the case of a student who does not otherwise qualify for leave under such a policy, a recipient shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy and recovery therefrom as a justification for a leave of absence for so long a period of time as is deemed medically necessary by the student's physician, at the conclusion of which the student shall be reinstated to the status which she held when the leave began.

(Secs. 901, 902, Education Amendments of 1972, 86 Stat. 373, 374; 20 U.S.C. 1681, 1682)

Teaching Child Development to Teenage Mothers

by Joan W. Weigle

Teaching child development to teenage mothers and pregnant school-age girls enrolled in the New London Young Parents Program, a project sponsored by the Maternal and Child Health Section of the Connecticut State Department of Health, has proved to be a challenging and valuable learning experience for me. The girls in the program, who are usually between the ages of 13 and 20, exhibit a wide range of needs, interests and abilities. Most cannot focus too long or with sustained interest on a formal study of children and since they seem to know very little about infants—the age at which a baby can be expected to smile, crawl, sit up or achieve other developmental milestones, for example—they often have unrealistic expectations for their children.

The girls may suffer from denial, repression, ignorance and fear, and many of their ideas about childrearing are based on old wives' tales. In many instances, these young mothers did not have good mothering themselves. So what do you do? You begin where they are, gain their interest and attention, and plunge ahead.

Since I began teaching child development to these young women three years ago, I have formulated two major goals: (1) to present knowledge about the growth and behavior of young children and to bring before them some of the expanding volume of recent findings from child development research and (2) to make them aware of the tool of "observing."

Through the approaches chosen to reach these goals, I hope that the girls will gain an understanding of the importance of childhood, an appreciation of the individuality of each child and some perception of their own personal development. Hopefully, each young

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Joan W. Weigle has served since July 1971 as director of infant care and child development, New London (Connecticut) Young Parents Program.

mother will increase in self-awareness, develop self-control and self-reliance, and attain a feeling of self-importance and an ability to control her own life. With such understanding and improved self-image, a better capability to cope with her life should emerge.

The young women who are enrolled in the program certainly have to cope with a great deal. The list of difficulties is formidable:

First, most are adolescents—their average age is 15—who have their own developmental stresses, needs and moods. Then, although they are or soon will be mothers (who are considered "high risk" medically during pregnancy and delivery), they are still carrying out the role of daughter because they usually remain at home where there is often continual stress. As students many have not been successful. In addition they may have to function as single parents. None of us knows what tomorrow may bring. However, for these teenage parents, the future almost surely holds a host of problems.

The major advantage these girls have is youth, with its resiliency, energy and capacity to have fun. In addition, they sometimes receive amazing emotional support from their families. Also to their benefit is the current focus by national, state and local agencies on the problems of young parents.

The most desirable method of teaching child development is one that involves the students' direct participation. . .

The child development course, which is offered once a week, is an accredited part of the academic program sponsored by the New London Public School System for pregnant girls and school-age mothers. About 20 to 25 young women are enrolled at the New London Center during the school year and receive full credit for completing academic subjects. In addition to the child development course, the Young Parents Program operates an infant day care center, which can handle up to 12 infants at a time, where the girls may bring their babies while they are attending classes.

I have found that the most desirable method of teaching child development is one that involves the students' direct participation—actively doing something—in workshops and by observing. The physical set-up at the New London Center, which is housed in an old school building, lends itself to these kinds of activities. The infant day care center is visible from the lounge where the girls gather and is close to the classrooms. The girls come to the infant center to feed their babies and often stop to visit between classes.

Much of our teaching is by "osmosis" as the mothers observe good techniques of child care in the infant center. Since good care is the young mother's concern as much as it is mine, I often adopt the technique that a mother prefers. If a method is not blatantly harmful, I will try her way. These young mothers seem to really want their babies. They get to know their needs, as do any new mothers, and they are concerned that they will be able to understand what their babies' cries mean and know how to deal with them. We encourage them to use their own common sense, for isn't confidence in one's method half the battle? Of course! Is there only one correct way to rear children? Of course *not!*

In addition to presenting good models of child care, knowledge of child development is shared in conferences two or three times a year between the mother and her child's caregiver in the infant center. These are special times to discuss the child's progress and future development. We try to be positive and encouraging with the mothers, but it is also our policy to be honest. Because we have built up a caring relationship with both mother and child, we can comment on any troubled areas, too. Photographs which are taken throughout the year are included in each child's folder and enhance the conference. (They also [illegible].) Much teaching also occurs in the informal exchanges [illegible] of the day, when the mothers arrive and comment on some activity or behavior of the baby the previous night, or at departure time when we might comment on the way a child put the cylinder in the sorting box slot 14 times in a row.

In the classroom, we cover basic developmental principles and general emotional, social, physical and intellectual development of children from birth to age three. We deal with an assortment of topics—discipline, children's fears, learning, play, day care and different cultural life styles—always trying to make the discussions practical and pertinent to the mother's needs. Our most popular workshop is one that demonstrates how to make toys out of readily available materials. We experiment with poster paint, finger paint and play dough as a sequel to viewing the delightful film *Early Expressionists*. Such films give a marvelous lift to classroom sessions, as they provide a change from the teacher's voice and vividly illustrate a lesson.

We also include a field trip to a well-administered local day nursery to expose the mothers to a model of quality day care. As they observe the teachers in the nursery school, they can also see some examples of how undesirable behavior may be handled.

The students complete written reports on their observations five times during the year, with one assignment being a report on a topic of the student's choice. Another report, to be written about the mother's hospital stay, is assigned to help her understand what the experience of giving birth has meant to her. In all assignments, we stress the importance of noting individual differences in children's physical achievement, development and personality.

The girls' response to the program may best be illustrated by their answers to such test questions as: "What was the most interesting topic covered in the child development class? Why? What did you get out of it?"

One girl replied: "Discipline . . . now I can cope with the things my little girl does wrong without yelling and hitting." Another said, "I was always puzzled about how I should go about dealing with my child's behavior, and now I have a better understanding of it." Other replies have included:

> ***"I was always puzzled about how I should go about dealing with my child's behavior and now I have a better understanding of it."***

"I had questions on how I should cope with my child when he's older. It helped me quite a bit. Now I have several different ways which would be the right ways to correct him when he does something he shouldn't do, ways that won't make him feel real bad and at the same time afraid of me."

"Getting a spanking just wears off and children will grow up with a grudge and feel unwanted and unloved. If they're told 'you're bad' then they will continue to be bad. By showing them to do something that's fun and not harmful, they won't be offended."

The young mothers do give evidence of a beginning understanding of good child care. A year of once-a-week classes in school cannot make an expert mother. But then four years of college and the rearing of four children will not guarantee perfection in a mother, either. Nor will our classes enable the girls to handle all situations appropriately. But in each case the class experience does open their eyes. It is our hope that these young mothers will achieve the ability to look and listen, learn a few valid techniques, and gain a sensitivity to building a sense of self-worth in their children so that they can then meet life with some measure of success and happiness.

Knowledge about one's own body and its functions and an appreciation and respect for it are essential to developing sound parental attitudes. Young people must learn not to abuse their bodies through drugs, demeaning sexual experiences and other self-destructive behavior. The child's appreciation of self, which begins when the infant plays with his toes and his genitals, depends on how the parents perceive that play, and how their attitudes about it are conveyed to the child. This points up the importance of good courses in hygiene, human sexuality and family living to give young people today the background of understanding needed to bring up a child. The prenatal course in our program serves as part of this essential education for parenting.

As society has functioned in the past, the *family* conveyed childrearing attitudes and skills. Now, with the predominance of smaller families who are usually isolated from close relatives, and with the emergence of so many single-parent families, there is less opportunity for young people to observe child care practices. Schools are beginning to accept the responsibility for education in child development. The joint Office of Child Development/Office of Education "Education for Parenthood" program is one example of the efforts that schools and others are making in this area.[1] We who are developing courses on our own will find the experiences of schools and organizations that participate in this program most helpful. James L. Hymes, Jr., professor of education at the University of Maryland and a noted authority on early childhood education, urges: "Right now, without waiting any longer, we ought to have at least one public nursery school (or day care center) in every high school in America to help our adolescent boys and girls get ready for family life."[2]

The past experiences of these young mothers cannot be changed—the reality of their babies has forever changed the course of their lives. Although we realize that every mother is not going to meet success as a parent, we are reassured when we see a young mother whose baby is healthy and steadily advancing, and who has completed school and is making real efforts to control her destiny. We felt particularly proud when we heard this young mother's comment concerning her change of attitude toward disciplining her child:

"Discipline now means to me that there is a better way to correct your child than by hitting him all the time for doing something wrong." ■

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[1] See the special "Education for Parenthood" issue of *Children Today*, March-April 1973. One of the articles in that issue, "School-Age Parents" by Sharon A. [illegible], describes the activities of the Consortium on Early Childbearing and Childrearing to help communities develop and improve services for school-age parents. The Consortium has recently developed curriculum materials to be used in programs for school-age parents. Now being field tested, these are designed both for the classroom and for use by students working independently outside the classroom. Further information can be obtained by writing: Consortium on Early Childbearing and Childrearing, Child Welfare League of America, Inc., Suite 618, 1145 19th St., N.W., Washington, D.C. 20036.

[2] Hymes, James L., Jr., *Early Childhood Education*. National Association for the Education of Young Children, [illegible].

nacsap

national conference

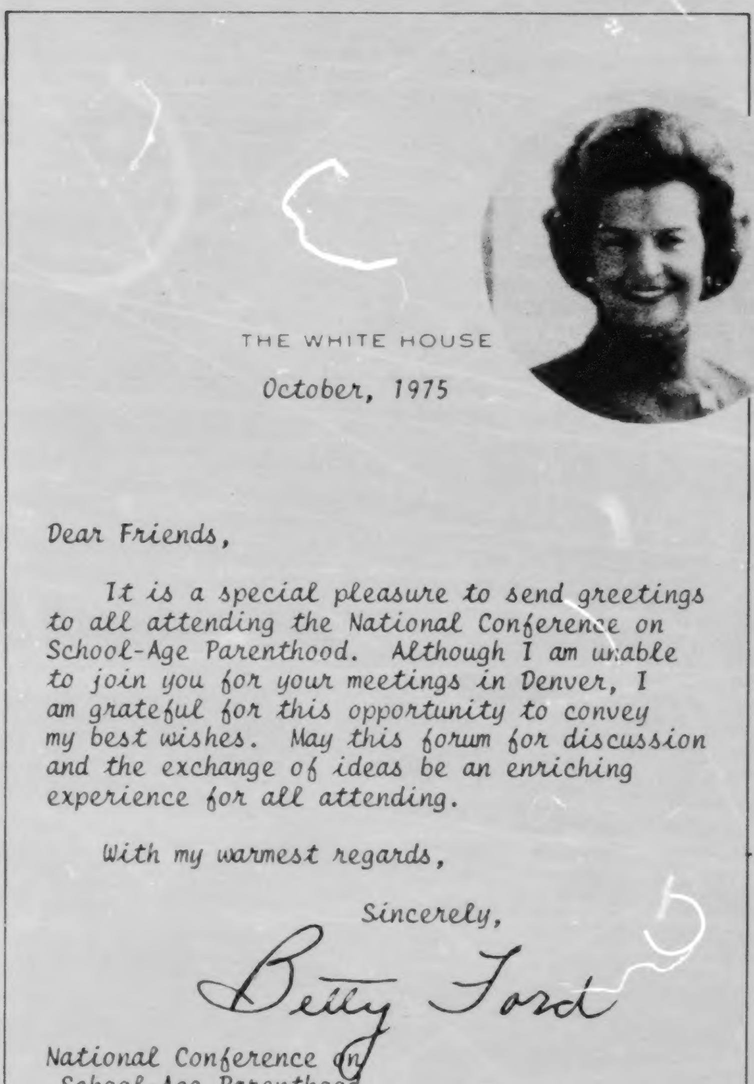
1975

school-age parenthood:

a national crisis
a challenge to action

sponsored by
National Alliance Concerned with School-Age Parents

The Brown Palace and Cosmopolitan Hotels
Denver, Colorado
October 8-11, 1975



THE WHITE HOUSE

October, 1975

Dear Friends,

It is a special pleasure to send greetings to all attending the National Conference on School-Age Parenthood. Although I am unable to join you for your meetings in Denver, I am grateful for this opportunity to convey my best wishes. May this forum for discussion and the exchange of ideas be an enriching experience for all attending.

With my warmest regards,

Sincerely,

Betty Ford

National Conference on
School-Age Parenthood
The Brown Palace Hotel
Denver, Colorado 80202

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National Alliance Concerned with School-Age Parents

7315 WISCONSIN AVENUE SUITE 211 W
WASHINGTON D.C. 20014
[illegible] 654-2035

Research Division
804 UNIVERSITY AVENUE 2nd FLOOR
SYRACUSE NEW YORK 13210
(315) 423-3595

October, 1975

National Conference on School-Age Parenthood
The Brown Palace and Coscopolitan Hotels
Denver, Colorado

Dear Conferees:

On behalf of the Board of Directors and staff of the National Alliance Concerned with School-Age Parents, I am pleased to have the opportunity to welcome you to the National Conference. Though we are meeting at a time when serious issues confront the human services field, through our collaborative efforts I am confident that we will be able to develop action plans which will positively impact on the needs of young parents and their families at national, state, and local levels.

Your willingness to participate in the discussions is deeply appreciated. The Alliance is hopeful that the National Conference on School-Age Parenthood will be an especially productive experience for you and others who are working on behalf of young parents.

Cordially,

Phillip J Goldstein md

Phillip J. Goldstein, M.D.
President, NACSAP

October 9-11, 1975
The Brown Palace Hotel
Denver, Colorado

National Conference
School-Age Parenthood: A National Crisis—
A Challenge to Action

about the conference sponsor

The National Alliance Concerned with School-Age Parents (NACSAP) is a multidisciplinary, non-profit tax-exempt membership organization specializing in the provision of technical assistance to individuals and groups advocating improved services delivery to school-age parents and their infants. Membership dues are: Young Parent — $2/yr.; Individual — $20/yr.; Family — $30/yr.; Sustaining — $50; and Patron — $100. All membership dues and contributions are tax deductible. For membership information, write NACSAP, 7315 Wisconsin Avenue, #211-W, Washington, D.C. 20014. Telephone: (301) 654-2335.

National Conference on School-Age Parenthood

planned and partially sponsored through funds provided by the Office of Special Programs, U.S. Office of Education, Department of Health, Education, and Welfare.

conference highlights ▶ ▶ ▶

Since the early sixties, literally hundreds of professionals and interested citizens from the fields of health, education, and the social services have devoted their energies and expertise to the problems of adolescent pregnancy and early parenthood. Hundreds of thousands of dollars have been spent on special programs designed for young parents; on conferences devoted to the examination of the issues; and on the development of techniques to prevent early, unwanted pregnancy.

Despite these efforts, the incidence of pregnancy is on the rise —especially among very young students. In 1974, nearly 250,000 women aged 17 or under gave birth, 11% of them for the second or subsequent time. At the same time, Federal commitment to school-age parent efforts has been dramatically reduced.

If we are to help young parents live full, rewarding lives, and simultaneously encourage responsible parenting, we must act effectively and we must act now. And we must act in concert with others who have allied interests.

The National Conference on School-Age Parenthood has, therefore, been planned to provide opportunities to share knowledge and experience and to learn about advocacy efforts presently being conducted on behalf of young parents and their families. As a conference participant you will:

- ▶ discover how other professionals are selecting remedial actions for the problems you presently are facing;
- ▶ learn about legislative developments at the Federal, state, and local levels;
- ▶ become acquainted with public and private sources of funding;
- ▶ identify technical assistance resources; and
- ▶ assist in the development of recommendations and follow-up mechanisms through which professionals and lay citizens can work cooperatively toward realization of our common goals after the meeting adjourns.

The National Conference program includes a keynote address by Hugh Downs on the effects of adolescent sexuality and school-age parenthood on society; a talk by Ralph Nader on corporate responsibility to school-age parents and other youth; research symposia; and over thirty workshops on major issues.

contributing sponsors

The National Alliance Concerned with School-Age Parents gratefully acknowledges the generous contributions of the following organizations in support of the National Conference on School-Age Parenthood.

Allstate Insurance Company
Northbrook, Illinois

American Federation of Teachers, AFL-CIO
Washington, D.C.

Mead-Johnson Laboratories
Evansville, Indiana

National Foundation-March of Dimes
White Plains, New York

The Salvation Army
National Headquarters
New York, New York

STATEMENT: The Salvation Army nationally, regionally, and locally, in numerous communities, has been and continues to be concerned with services to teenage parents and their children. We are committed to quality, effective, coordinated services—giving appropriate choices to teenage parents to meet their individual needs.

pre-conference activities and general information

(All pre-conference activities will be conducted at the Brown Palace Hotel unless otherwise indicated.)

Faculty Orientation — **9:00-11:30 a.m.**
Ballroom B

NACSAP Board of Directors Meeting — **1:30-4:30 p.m.**
Headquarters Suite

Registration — **3:00-9:00 p.m.**
Top of Escalator–2nd Floor

Note: Registration Facilities will also be set up at the Cosmopolitan Hotel on Thursday, October 9, and will be open from 7:30 a.m.-5:00 p.m. The Brown Palace Registration Desks will be open throughout the conference according to the following schedule:

Thursday, October 9	7:30 a.m.-5:00 p.m.
Friday, October 10	7:30 a.m.-5:00 p.m.
Saturday, October 11	8:30 a.m.-Noon

Exhibits — **3:00-9:00 p.m.**
Promenade

Exhibit hours throughout the conference will be:

Thursday, October 9	8:00 a.m.-4:00 p.m.
Friday, October 10	8:00 a.m.-4:00 p.m.
Saturday, October 11	8:30 a.m.-Noon

Regional and Youth Caucus Warm-Ups — **3:00-6:00 p.m.**
Gold Room

Press Headquarters — **3:00-8:00 p.m.**
Tabor Room

Note: An adjunct Press Room will also be set up at the Cosmopolitan Hotel on Thursday, October 9. The Press Room hours throughout the conference will be:

Thursday, October 9	8:00 a.m.-4:00 p.m.
Friday, October 10	8:00 a.m.-9:30 p.m.
Saturday, October 11	8:30 a.m.-2:30 p.m.

Press and publicity arrangements for the National Conference on School-Age Parenthood have been handled by Philip Musgrave, President, Public Communications, Inc., Vienna, Virginia.

Audio-Visual Feature **6:30-8:00 p.m.**
Ballroom

"The Pat and Janis Story"
Produced and Distributed by John Ward Productions, Arlington, Virginia
Introduction: John R. Ward, President

"Teenage Pregnancy"
Produced by Sherill Koski, National FHA/HERO Officer, Iron, Minnesota
Distributed by National Foundation-March of Dimes
Introduction: Sherill Koski

"Toledo Crittenton Services"
Produced by Genesis, Inc., in cooperation with Toledo Crittenton Services
Introduction: Gilbert Menough, Executive Director
Toledo Crittenton Services, Toledo, Ohio

Reception **7:00-8:30 p.m.**
Ballroom

conference program schedule

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thursday, october 9

Opening General Session 8:30-11:45 a.m.
Silver Glade Room—Cosmopolitan Hotel

Presiding and Welcome

Phillip J. Goldstein, M.D., President, National Alliance Concerned with School-Age Parents, and Obstetrician-Gynecologist in Chief, Sinai Hospital, Baltimore, Maryland

Private Sector Responsibilities to School-Age Parents

Joseph F. Nee, President, National Foundation-March of Dimes, White Plains, New York

"Dare We Lead?"

KEYNOTE ADDRESS

Adolescent Sexuality—Its Impact on the Family

Hugh Downs—Television Personality, Lecturer, Author, Carefree, Arizona

A discussion of the phenomenon of adolescent sexuality and its effects on youth, their families, and society. Special emphasis will be given to the consequences for young people whose sexuality results in early parenthood.

ISSUES PANEL

Defining the Problems

Moderator:

Harriet Pilpel, General Counsel, Planned Parenthood-World Population, and Senior Partner, Greenbaum, Wolff and Ernst, New York, New York

Panelists:

Joseph Rauh, M.D., President, Society for Adolescent Medicine, and Director, Division of Adolescent Medicine, Children's Hospital Medical Center, Cincinnati, Ohio;

John W. Porter, Ph.D., State Superintendent of Public Instruction, Lansing, Michigan;

Judy Assmus Riggs, Legislative Representative, Washington Research Project Action Council, and Child Care Specialist, Children's Defense Fund, Washington, D.C.;

Vicki DeBeau, Youth Representative, Glendale, California.

Robert O. Wyllie, Director, Bureau of Social Welfare, Maine Department of Health and Welfare, Augusta, Maine

Challenge to Action

Janet Bell Forbush, Executive Director, National Alliance Concerned with School-Age Parents, Washington, D.C

Luncheon

Silver Glade and Century Rooms—Cosmopolitan Hotel 12:45 p.m.

Presiding

Ambrose Brazelton, Chief, Urban Education Division, Ohio Department of Education, Columbus, Ohio

Invocation

Reverend Philip Perkins, NACSAP Board Member and Rector, Grace Episcopal Church, West Palm Beach, Florida

Address

Young Parents—Their Challenge to Educators

Georgia McMurray, Chairperson, Alliance for Children, former Commissioner, New York City Agency for Child Development, New York, New York

A consideration of the roles of local boards of education, administrators, and staff in response to the needs of young parents and their families. Attention will be given to advocacy strategies effective in educational milieu.

Response to the Challenge

Carl Marburger, Senior Associate, National Committee for Citizens in Education, Columbia, Maryland

Regional and Youth Caucus Rooms
Trinity United Methodist Church

Open throughout Conference

discussion groups

The small-group discussions will be convened three times during the conference unless otherwise indicated. On Thursday, October 9, the sessions will meet from 2:15-3:30 p.m. and again from 3:45-5:00 p.m. On Friday, October 10, the small-groups will meet from 2:15-3:30 p.m. Regional Caucus Groups will be convened on Friday, October 10, from 3:45-5:00 p.m.

Series A—General Information

(Series A Discussion Groups will meet only from 2:15-3:30 p.m. on Thursday, October 9.)

1A and 1B. Introductory Overview—School-Age Parenthood Issues (English and Spanish)

Ballroom B–Brown Palace Hotel

Janet Bell Forbush, Executive Director, National Alliance Concerned with School-Age Parents

2. **Federal and State Legislation**

Silver Plume Room–Brown Palace Hotel

William Lunsford, Advocacy Program Director, National Committee for Prevention of Child Abuse, Chicago, Illinois

3. **Special Programs for Young Parents**

Corner Parlor–Brown Palace Hotel

Lani Edie, Counselor, Pregnant Minors Program, Simi Valley Unified School District, Simi Valley, California

4. **Research**

Trinity United Methodist Church

Bernard B. Braen, Ph.D., Director, Research and Publications, National Alliance Concerned with School-Age Parents, and Director, Clinical Training Program, Psychology Department, Syracuse University, Syracuse, New York

5. **Advocacy Organizations**

Ballroom B–Brown Palace Hotel

(Resource Person to be announced.)

Series B—Special Interest Issues

6. **Federal Legislation**

Directors Room–Cosmopolitan Hotel

Judy Assmus Riggs, Legislative Representative, Washington Research Project Action Council, and Child Care Specialist, Children's Defense Fund, Washington, D.C.

Arthur J. Viseltear, M.P.H., Ph.D., Associate Professor of Public Health, Yale University School of Medicine, and 1974-'75 Robert Wood Johnson Health Policy Fellow, New Haven, Connecticut. (Friday Session only.)

7. **Model State Laws**

Ballroom B–Brown Palace Hotel

(Resource Person to be announced.)

8. **Child Abuse**

Stratton Room–Brown Palace Hotel

Doug Besharov, Director, National Center for Child Abuse, Office of Child Development—DHEW, Washington, D.C.

9A and 9B. **Cultural and Ethnic Issues** (English and Spanish)

Leadville Room–Brown Palace Hotel

Ralph Garcia, Coordinator, Young Parents Learning Unit, Southwest Mental Health Unit, Bexar County Mental Health and Retardation Center, San Antonio, Texas

Ida Chambliss, Project Coordinator, Foster Parent/Day Care Parent In-Service Training Project, North Seattle Community College, Seattle, Washington

Pat Morgan, Minority and Youth Consultant, Community Health Center, and Member, Florida Statewide Task Force on Adolescent Parents, West Palm Beach, Florida

10. **Today's Family Structure**

Trinity United Methodist Church

Robert S. Pickett, Ph.D., Associate Professor, Child and Family Studies, Syracuse University, Syracuse, New York

11. **Ethical and Moral Issues**

Corner Parlor–Brown Palace Hotel

Reverend Philip E. Perkins, Rector, Grace Episcopal Church, and Board Member, National Alliance Concerned with School-Age Parents, West Palm Beach, Florida

Betty Gray, Editor, Episcopal New Yorker Magazine, New York, New York

12. **The Economics of School-Age Pregnancy**

Room 341–Cosmopolitan Hotel

Bernard Anderson, Ph.D., Associate Professor of Industry, Wharton School of Finance, University of Pennsylvania, Philadelphia, Pennsylvania

13. **Parenting Education** (This discussion group is sponsored by the U.S. Office of Education, DHEW, Washington, D.C.)

Onyx Room–Brown Palace Hotel

W. Stanley Kruger, Director, HEW Inter-Agency Task Force on Comprehensive Programs for School-Age Parents, U.S. Office of Education, Washington, D.C.

David Arbor, Principal, Harriet Tubman High School, Compton Unified School District, and Board Member, National Alliance Concerned with School-Age Parents, Compton, California

E. Dollie Wolverton, Program Planning Specialist, Children's Bureau, Office of Child Development—DHEW, Washington, D.C.

14. **Sex Roles and Self-Esteem**

Room 732–Cosmopolitan Hotel

Ronald Calsbeek, Director, Park School for Pregnant Girls, Grand Rapids, Michigan

15. **Population Issues**

Georgetown Room–Brown Palace Hotel

William Ryerson, Director, Youth and Student Affairs Division, The Population Institute, Washington, D.C.

16. **Organizing Your Community for Action**

Coronet Room–Brown Palace Hotel

Elaine Wolfe Grady, Supervisor, Pupil Personnel Services, San Francisco Unified School District, San Francisco, California

Fergus Pope, M.D., Director, Yancey County Primary Care Clinic, Burnsville, North Carolina

17. **Church Relations and Involvement**

Trinity United Methodist Church

Reverend William Gray, Director, Office of Communications, Parish of Trinity Church, New York, New York

18. **Advocacy Strategies**

Bonanza Room–Cosmopolitan Hotel

Jeannette Watson, Director, Office of Early Childhood Development, Texas Department of Community Affairs, Austin, Texas

19. **Regional Health Care Models**

Silver Glade Room–Cosmopolitan Hotel

L. Joseph Butterfield, M.D., Director, Neonatology Department, Children's Hospital, and Clinical Professor, Department of Pediatrics, University of Colorado Medical Center, Denver, Colorado

20. **Clinic Services for Adolescents**

Holiday Room–Cosmopolitan Hotel

Eleanor Smith, R.N., Assistant Clinical Professor, University of California School of Nursing, San Francisco Medical Center, and Board Member, National Alliance Concerned with School-Age Parents, San Francisco, California

William Smiley, M.D., Assistant Deputy Health Commissioner, St. Louis City Health Department, Department of Maternal and Child Health, and Board Member, National Alliance Concerned with School-Age Parents, St. Louis, Missouri

Gene Vadies, Director, Youth and Student Affairs, Planned Parenthood-World Population, New York, New York

21. **Needs Assessment in Your Community**

Gold Room–Brown Palace Hotel

Nancy Dodson, Research Director, Community Service Council of Greater Tulsa, Tulsa, Oklahoma. (First Session only.)

James Jekel, M.D., Associate Professor of Public Health, Department of Epidemiology and Public Health, Yale University Medical School, and Board Member, National Alliance Concerned with School-Age Parents, New Haven, Connecticut

22. **Starting and Maintaining Statewide Organizations**

Silver Glade Room–Cosmopolitan Hotel

Bessie King Jackson, Director, Bethune Center Program for Single Parents, Board Member, National Alliance and President, Ohio Alliance Concerned with Teen-Age Parents, Columbus, Ohio

Elsa Koski, R.N., Home Nursing Teacher, and Region III—Vice President, Oregon Alliance Concerned with School-Age Parents, Grants Pass, Oregon

23. Program Evaluation

Cripple Creek Room–Brown Palace Hotel

Lorraine Klerman, M.P.H., D.P.H., Associate Professor of Public Health, Florence Heller Graduate School for Advanced Studies in Social Welfare, Brandeis University, Waltham, Massachusetts

Series C—Program Development and Administration

24. Administration

Silver Glade Room–Cosmopolitan Hotel

Lucinda Gordon, Coordinator, School-Age Parents Program—Lady Pitts Center, Milwaukee Public Schools, and Board Member, National Alliance Concerned with School-Age Parents, Milwaukee, Wisconsin

25. Pr[illegible] Follow-Through Services

Silver Glade Room–Cosmopolitan Hotel

Nancy Boykin, Director, Continuing Education for Girls, Detroit Public Schools, and Board Member, National Alliance Concerned with School-Age Parents

Judith Lau, Executive Director, Virginia Commission for Children and Youth, Richmond, Virginia

26. Curriculum Materials (This discussion group is sponsored by the U.S. Office of Education, DHEW, Washington, D.C.)

Derrick Room–Cosmopolitan Hotel

Thomas Fitzgerald, Regional Coordinator—Education for Parenthood, Education Development Center, Denver, Colorado

Merle Church, Coordinator, Teen Mother Program, Glendale Unified School District, and Board Member, California Alliance Concerned with School-Age Parents, Glendale, California

27. Public Relations Strategies

Corner Parlor–Brown Palace Hotel

Philip J. Musgrave, President Public Communications, Inc., Vienna, Virginia

28A. Staff Training Programs—Values Clarification

Century Room–Cosmopolitan Hotel

Karen Wernicke, Unmarried Parents Specialist, Department of Social and Health Services, and Board Member, Washington Alliance Concerned with School-Age Parents, Seattle, Washington

28B. Staff Training Programs—Human Sexuality

Century Room–Cosmopolitan Hotel

Warren Gadpaille, M.D., Adjunct Professor, Department of Psychology, Counseling and Guidance, University of North Colorado, and Psychiatrist, Private Practice, Englewood, Colorado

28C. **Staff Training Programs—Special Center and Regular School Personnel**

Century Room–Cosmopolitan Hotel

Gary Wilson, Director, Humanics, Inc., Atlanta, Georgia

Harold Goldmeier, Ed.D., Executive Director, Massachusetts Committee on Children and Youth, Boston, Massachusetts

29. **Funding Sources—Government and Private**

Central City Room–Brown Palace Hotel

Garrison Addis, Executive Vice President, Resource, Inc., Minneapolis, Minnesota

Frederick Jago, Jr., Program Development Specialist, Camden County Hospitals, Blackwood, New Jersey

Wilfred Hopp, Ed.D., Principal, Simi Valley Adult School, and Board Member, California Alliance Concerned with School-Age Parents, Simi Valley, California

No-Host Cocktail Hour 7:00-8:00 p.m.
Central City Room–Brown Palace Hotel

NACSAP Affiliate Officers Reception 7:00-8:00 p.m.
Onyx Room–Brown Palace Hotel

friday, october 10

General Session 8:30 a.m.-12:15 p.m.

Ballroom–Brown Palace Hotel

Presiding

Lucinda Gordon, Vice President, National Alliance Concerned with School-Age Parents, and Coordinator, School-Age Parents Program—Lady Pitts Center, Milwaukee Public Schools, Milwaukee, Wisconsin

Address

Health Policy Development—Its Relationship to Adolescent Services

Arthur J. Viseltear, M.P.H., Ph.D., Associate Professor of Public Health, Yale University School of Medicine, and 1974-75 Robert Wood Johnson Health Policy Fellow, New Haven, Connecticut. (Dr. Viseltear is presently a consultant to the Senate Subcommittee on Health.)

A discussion of current and pending health legislation with consideration for the effects on adolescent parent services. Attention will also be given to strategies for involving advocacy groups in health policy development.

In Response: A Legislator's Viewpoint on Health Policy

Samuel J. Baptista, Assistant to Congressman Paul G. Rogers (D-Florida), Chairman, House Subcommittee on Public Health and Environment, Washington, D.C.

An overview of recent legislative action on health programs affecting children and youth. Mr. Baptista will respond to questions from the floor.

ISSUES PANEL

Moving Toward Action

Moderator: **James Jekel,** M.D., Associate Professor of Public Health, Yale University Medical School, and Treasurer, National Alliance Concerned with School-Age Parents, New Haven, Connecticut

Panelists as listed for Thursday, October 9.

CONFERENCE COMMENTARY

Reverend William Gray, Director, Office of Communications, Parish of Trinity Church, New York, New York

DISCUSSION GROUPS

2:15-3:30 p.m.

The discussion groups will meet only once on Friday. For room locations refer to the Program Schedule of Thursday, October 9.

RESEARCH SYMPOSIA

2:15-5:00 p.m.

Trinity United Methodist Church

Moderator: **Bernard Braen,** Ph.D., Director, Research and Publications, National Alliance Concerned with School-Age Parents, and Director, Clinical Training, Psychology Department, Syracuse University, Syracuse, New York

Note: For schedule and titles of papers and abstracts to be presented, refer to materials in conference packet.

REGIONAL AND YOUTH CAUCUS GROUPS

3:30-5:00 p.m.

Brown Palace Hotel

(Each conferee has been given a Regional Caucus Group assignment. Please check your registration materials for the Regional Caucus designated for conferees from your area.)

Region I—*Leadville Room*

Moderator: **Harold Goldmeier,** Ed.D., Executive Director, Massachusetts Committee on Children and Youth, Boston, Massachusetts

Region II—*Onyx Room*
Moderator: **Vivian Washington,** Chairperson, Governor's Commission on Children and Youth, and NACSAP Board Member, Baltimore, Maryland

Region III—*Coronet Room*
Moderators: **Ernest Gullerud,** D.S.W., Assistant Professor, Jane Addams Graduate School of Social Work, University of Illinois, and President, Illinois Association for Comprehensive Services to School Age Parents, Urbana, Illinois

Carl Holland, Technical Assistance Coordinator, Jane Addams Graduate School of Social Work, University of Illinois, and Board Member, Illinois Association for Comprehensive Services to School Age Parents, Urbana, Illinois

Region IV—*Central City Room*
Moderator: **Lois Gatchell,** Director, Margaret Hudson Program, Tulsa, Oklahoma

Region V—*Stratton Room*
Moderators: **Edythe Connolly,** Health Education Consultant, Maternal and Child Health Section, Department of Human Resources, and President-elect, Oregon Alliance Concerned with School-Age Parents, Portland, Oregon

Wilfred Hopp, Ed.D., Principal, Simi Valley Adult School, Simi Valley Unified School District, and President, California Alliance Concerned with School-Age Parents

Youth Caucus—*Gold Room*
Moderator: **Francois Henriquez,** Youth Delegate, Yale University, New Haven, Connecticut

Note: Resolutions for action recommended for floor vote on Saturday morning are to be developed during the Regional and Youth Caucuses and should be turned into the Resolutions Committee by 6:00 p.m. on Friday, October 10. Mr. Carl Holland and Ms. Judith Lau will receive the resolutions.

Reception 7:00 p.m.
Ballroom–Brown Palace Hotel

Banquet 8:00 p.m.
Ballroom–Brown Palace Hotel

Presiding

L. Joseph Butterfield, M.D., Director, Neonatology Department, Children's Hospital, and Clinical Professor, Department of Pediatrics, University of Colorado Medical Center, Denver, Colorado

Invocation

Vivian Washington, Board Member, NACSAP, and Chairperson, Governor's Commission on Children and Youth, Baltimore, Maryland

Conference Awards Presentation

Janet Bell Forbush, Executive Director, NACSAP, Washington, D.C.

Introduction of Banquet Speaker

William Furst, M.D., National Conference Planning Council, and Chairman, Subcommittee on Parenting, American Academy of Pediatrics, Odessa, Texas

Address

Corporations and Youth

Ralph Nader, America's Foremost Consumer Advocate, Washington, D.C.

Mr. Nader will consider ways in which corporate resources can be put to use in the interests of youth and how conferees, as advocates, can support that action.

saturday, october 11

General Session 9:00-11:45 a.m.

Silver Glade Room–Cosmopolitan Hotel

Open Forum

Presiding

Carl Holland, Board Member, Illinois Association for Comprehensive Services to School Age Parents, and Technical Assistance Coordinator, Jane Addams Graduate School of Social Work, University of Illinois, Urbana, Illinois

Wilfred Hopp, Ed.D., President, California Alliance Concerned with School-Age Parents, and Principal, Simi Valley Adult School, Simi Valley Unified School District, Simi Valley, California

The Open Forum will include a report to the floor from the Regional and Youth Caucuses, a floor vote on resolutions, and formulation of recommendations to Federal and state policymakers.

Conference Summary

Kyo Jhin, Ed.D., Executive Director, Top of Alabama Regional Education Service Agency, and Member, National Advisory Council on Adult Education, (Presidential Appointment), Huntsville, Alabama

NACSAP Awards Luncheon and Business Meeting 12:15-2:00 p.m.

Ballroom–Brown Palace Hotel

Presiding

Phillip J. Goldstein, M.D., President, National Alliance Concerned with School-Age Parents, Baltimore, Maryland

Awards

- Certificates of Appreciation
- Achievement—Research
- Achievement—Program Development and Administration
- Achievement—Advocacy Organization Development
- Distinguished Service

NACSAP/American School Health Association

Joint Session—Federal Health Legislation 3:45-5:00 p.m.
The Hilton Hotel

Address will be delivered by **Arthur J. Viseltear,** M.P.H., Ph.D., Associate Professor of Public Health, Yale University School of Medicine, and 1974-75 Robert Wood Johnson Health Policy Fellow, New Haven, Connecticut.

This special session is being sponsored cooperatively by NACSAP and ASHA in recognition of the parallel interests of members of both associations in health legislation issues.

conference faculty roster

Addis, Garrison
Executive Vice President
Resource Inc
7710 Computer Avenue
Minneapolis, Minnesota 55435

Anderson Bernard Ph D
Associate Professor of Industry
Wharton School of Finance
University of Pennsylvania
3733 Spruce Street
Philadelphia, Pennsylvania 19174

Arbor, David (NACSAP Board)
Principal, Harriet Tubman High School
Compton Unified School District
12501 South Wilmington Avenue
Compton, California 90222

Baptista, Samuel J.
Assistant to Congressman Paul Rogers
(Democrat—West Palm Beach, Florida)
Rayburn House Office Building—Room 2407
Washington, D.C. 20515

Besharov, Doug
Director, National Center for Child Abuse
Office of Child Development—DHEW
P.O. Box 1182
Washington, D.C. 20013

Boykin, Nancy (NACSAP Board)
Director, Continuing Education for Girls
Detroit Public Schools
10[illegible]0 Grand River—Room 305
Detroit, Michigan 48204

Braen, Bernard, Ph D
(Director, Research and
Publications—NACSAP)
Director, Clinical Training Program
Psychology Department
Syracuse University
331 Huntington Hall
Syracuse, New York 13210

Butterfield, L. Joseph, M D
Director, Neonatology Department
The Children's Hospital
1056 East 19th Avenue
Denver, Colorado 80218

Calsbeek, Ronald
Director, Park School for Pregnant Girls
Grand Rapids Board of Education
1215 E. Fulton Street
Grand Rapids, Michigan 49503

Chambliss, Ida
Project Coordinator
Foster Parent-Day Care Parent In-Service
Training Project
North Seattle Community College
Home and Family Education Division
9600 College Way North
Seattle, Washington 98103

Church, Merle (CACSAP Board)
1600 Strand
Manhattan Beach, California 90266

Connolly, Edythe (OACSAP Board)
8127 S.W. 45th Avenue
Portland, Oregon 97219

DeBeau, Vicki (Youth Delegate)
1423 Plumas Street
Glendale, California 91205

Dodson, Nancy
Research Director
Community Service Council
of Greater Tulsa
1430 South Boulder
Tulsa, Oklahoma 74119

Downs, Hugh
President, Raylin Productions, Inc
P.O. Box 1132
Carefree, Arizona 85331

Durflinger, Euzetta (Youth Delegate)
5415 North University
Peoria, Illinois 61614

Edie, Lani
Counselor, Pregnant Minor's Program
Simi Valley Adult School
3150 School Street
Simi Valley, California 93065

Fitzgerald, Thomas
Regional Coordinator—Education for
Parenthood
Education Development Center—West
Colorado Women's College
Montview at Quebec Streets
Denver, Colorado 80220

Forbush, Janet Bell
Executive Director
National Alliance Concerned with School-Age
Parents
7315 Wisconsin Avenue—Suite 211-W
Washington, D.C. 20014

Furst, William, M D
808 Tower Drive
Odessa, Texas 79761

Gadpaille, Warren, M D
South Clarkson Medical Building—Suite 540
3601 South Clarkson Street
Englewood, Colorado 80110

Garcia, Ralph
Coordinator, Young Parents Learning Unit
Southwest Mental Health Unit
Bexar County Mental Health and Mental Retardation Center
2415 W. Southcross
San Antonio, Texas 78211

Gatchell, Lois
Director, Margaret Hudson Program
P.O. Box 52568
Tulsa, Oklahoma 74152

Goldmeier, Harold, Ed D
Executive Director
Massachusetts Committee on Children and Youth
9 Newbury Street
Boston, Massachusetts 02116

Goldstein, Phillip, M D (NACSAP Board)
Obstetrician-Gynecologist in Chief
Sinai Hospital
Belvedere and Greenspring Avenues
Baltimore, Maryland 21215

Gordon, Lucinda (NACSAP Board)
Coordinator, School-Age Parents Program—Lady Pitts Center
Milwaukee Public Schools
3903 West Lisbon Avenue
Milwaukee, Wisconsin 53208

Grady, Elaine
Supervisor, Pupil Personnel Services
San Francisco Unified School District
1945 Washington Street
San Francisco, California 94109

Gray, Betty
Editor, Episcopal New Yorker Magazine
1047 Amsterdam Avenue
New York, New York 10025

Gray, Reverend William
Director, Office of Communications
Parish of Trinity Church
74 Trinity Place
New York, New York 10006

Gullerud, Ernest, D S W
Assistant Professor
Jane Addams Graduate School of Social Work
University of Illinois
1207 West Oregon
Urbana, Illinois 61801

Harmon, Vicki (Youth Delegate)
1328 25th Avenue
San Francisco, California 94122

Henriquez, Francois (Youth Delegate)
175 Yale Station
New Haven, Connecticut 06520

Holland, Carl
Technical Assistance Coordinator
Jane Addams Graduate School of Social Work
University of Illinois
1207 West Oregon
Urbana, Illinois 61801

Hopp, Wilfred, Ed D (CACSAP Board)
Principal, Simi Valley Adult School
Simi Valley Unified School District
3150 School Street
Simi Valley, California 93065

Jackson, Bessie (NACSAP Board)
Director, Bethune Center Program for Single Parents
440 Fairfield
Columbus, Ohio 43203

Jago, Frederick, Jr.
Program Development Specialist
Camden County Hospitals—Lakeland
Blackwood, New Jersey 08012

Jekel, James, M D (NACSAP Board)
Associate Professor of Public Health
Department of Epidemiology and Public Health
Yale University Medical School
60 College Street
New Haven, Connecticut 06510

Jhin, Kyo, Ed D
Executive Director
Top of Alabama Regional Education Service Agency
711 Arcadia Circle
Huntsville, Alabama 35801

Kelley, Mary (Youth Delegate)
1411½ Florence Lane
Grants Pass, Oregon 97526

Klerman, Lorraine, M P H , D P H
Associate Professor of Public Health
Florence Heller Graduate School for Advanced Studies in Social Welfare
Brandeis University
Waltham, Massachusetts 02154

Koski, Elsa, R N (OACSAP Board)
Home Nursing Teacher
Grants Pass High School
522 N E Olive
Grants Pass, Oregon 97526

Koski, Sherill
Future Homemakers of America
R.R. 1—Box 135
Iron, Minnesota 55751

Kruger, W. Stanley
Director, HEW Inter-Agency Task Force on Comprehensive Programs for School-Age Parents
U.S. Office of Education
400 Maryland Avenue, S.W.—Room 2089-G
Washington, D.C. 20202

Lau, Judith
Executive Director
Virginia Commission for Children and Youth
1200 State Office Building
Richmond, Virginia 23219

Lunsford, William
Advocacy Program Director
National Committee for Prevention of Child Abuse
111 East Wacker Drive—Suite 510
Chicago, Illinois 60601

Marburger, Carl
Senior Associate
National Committee for Citizens in Education
Wilde Lake Village Green—Suite 410
Columbia, Maryland 21044

McMurray, Georgia
Chairperson, Alliance for Children
784 Columbus Avenue—Apt. 14-E
New York, New York 10025

Menough, Gilbert
Executive Director
Toledo Crittenton Services
3151 Chollet Drive
Toledo, Ohio 43606

Morgan, Pat
Minority and Youth Consultant
Community Health Center
1041 West 45th Street
West Palm Beach, Florida 33407

Musgrave, Philip
President, Public Communications, Inc.
125 Church Street
Vienna, Virginia 22180

Nader, Ralph
Center for the Study of Responsive Law
P.O. Box 19367
Washington, D.C. 20036

Nee, Joseph
President, National Foundation-March of Dimes
1275 Mamaroneck Avenue
White Plains, New York 10605

O'Brien, Kevin (Youth Delegate)
424 Oyster Road
North Palm Beach, Florida 33408

Perkins, Reverend Philip (NACSAP Board)
Rector, Grace Episcopal Church
3600 Australian Avenue
West Palm Beach, Florida 33407

Pickett, Robert, Ph.D.
Associate Professor
Child and Family Studies
Syracuse University
Syracuse, New York 13210

Pilpel, Harriet
Senior Partner, Greenbaum, Wolff and Ernst
437 Madison Avenue
New York, New York 10022

Pope, Fergus, M.D.
Director, Yancey County Primary Care Clinic
Route 5
Burnsville, North Carolina 28714

Porter, John, Ph.D.
Superintendent of Public Instruction
State Department of Education
Michigan National Tower Building
Lansing, Michigan 48902

Rauh, Joseph, M.D.
Director, Adolescent Clinic
Pavilion Building
Elland and Bethesda Avenues
Cincinnati, Ohio 45229

Riggs, Judy Assmus
Legislative Representative
Washington Research Project Action Council
1520 New Hampshire Avenue, N.W.
Washington, D.C. 20036

Ryerson, William
Director, Youth and Student Affairs Division
The Population Institute
110 Maryland Avenue, N.E.
Washington, D.C. 20002

Smiley, William, M.D. (NACSAP Board)
Assistant Deputy Health Commissioner
St. Louis City Health Department
Department of Maternal and Child Health
1412 North Jefferson Street
St. Louis, Missouri 63106

Smith, Eleanor, R.N. (NACSAP Board)
Assistant Clinical Professor
Department of Family Health Care Nursing
University of California School of Nursing
San Francisco Medical Center
San Francisco, California 94122

Vadies, Gene
Director, Youth and Student Affairs
Planned Parenthood-World Population
810 Seventh Avenue
New York, New York 10019

Viseltear, Arthur, M.P.H., Ph.D.
Associate Professor of Public Health
Yale University School of Medicine
60 College Street
New Haven, Connecticut 06510

Ward, John
President, John Ward Productions
6123 Beech Tree Drive
Alexandria, Virginia 22310

Washington, Vivian (NACSAP Board)
Chairperson, Maryland Governor's
Commission on Children and Youth
3507 Ellamont Road
Baltimore, Maryland 21215

Watson, Jeannette
Director, Office of Early Childhood
Development
Texas Department of Community Affairs
P.O. Box 13166
Capitol Station
Austin, Texas 78711

Wernicke, Karen (WACSAP II BOARD)
Unmarried Parents Specialist
Department of Social and Health Services
P.O. Box 1788—M.S. 27-1
Olympia, Washington 98504

Wilson, Gary
Director, Humanics, Inc.
881 Peachtree Street N.E.—Suite 114
Atlanta, Georgia 30309

Wolverton, E. Dollie
Program Planning Specialist
Children's Bureau
Office of Child Development—DHEW
P.O. Box 1182
Washington, D.C. 20013

Wyllie, Robert
Director, Bureau of Social Welfare
Department of Health and Welfare
Augusta, Maine 04330

national conference planning council

Allen Alexander
Information Officer
U.S. Office of Education
Washington, D.C.

Helen Bosserman
Assistant National Director
Nursing and Health Programs
American National Red Cross
Washington, D.C.

Bernard Braen, Ph.D.
Director, Research and Publications
National Alliance Concerned with School-Age Parents
Syracuse, New York

Richard Brown, M.D.
Director of Adolescent Medicine, Children's Hospital, and Medical Director, Youth Guidance Center
San Francisco, California

Ronald Calsbeek, Director
Park School for Pregnant Girls
Grand Rapids, Michigan

Edythe Connolly, President-Elect
Oregon Alliance Concerned with School-Age Parents
Portland, Oregon

Janet Bell Forbush*
Executive Director
National Alliance Concerned with School-Age Parents
Washington, D.C.

William Furst, M.D., Chairman
Subcommittee on Parenting
American Academy of Pediatrics
Odessa, Texas

Gwendolyn Gilbert
Associate Professor
School of Social Work
Ohio State University
Columbus, Ohio

Phillip Goldstein, M.D.
Obstetrician-Gynecologist in Chief, Sinai Hospital, and President, National Alliance Concerned with School-Age Parents
Baltimore, Maryland

Betty Gray, Editor
Episcopal New Yorker Magazine
New York, New York

Reverend William Gray, Director
Office of Communications
Parish of Trinity Church
New York, New York

Carl Holland
Technical Assistance Coordinator
Jane Addams Graduate School of Social Work
Champaign, Illinois

Wilfred Hopp, Ed.D., President
California Alliance Concerned with School-Age Parents
Thousand Oaks, California

William Jennings, Head Teacher
Off-Campus School
Bellevue, Washington

Stephen Jerrick, Executive Director
American School Health Association
Kent, Ohio

Kyo Jhin, Ed.D., Director
Top of Alabama Regional Education Service Agency
Huntsville, Alabama

W. Stanley Kruger, Director
HEW Inter-Agency Task Force on Comprehensive Programs for School-Age Parents
U.S. Office of Education
Washington, D.C.

Judith Lau, Executive Director
Virginia Commission for Children and Youth
Richmond, Virginia

Justin Marino, Chairperson
Arizona Committee on School-Age Parenting
Phoenix, Arizona

Pat Morgan, Representative
Florida Statewide Task Force on Adolescent Parents
West Palm Beach, Florida

Henk Newenhouse, Ph.D., President
Perennial Education, Inc.
Northfield, Illinois

Steven Sawchuck, M.D.
Director, Medical Services
Johnson and Johnson Institute for Pediatric Service
New Brunswick, New Jersey

*Conference Chairperson

Gabriel Stickle
Vice President of Programs
The National Foundation-March of Dimes
White Plains, New York

Vivian Washington, Chairperson
Maryland Governor's Commission on
Children and Youth
Baltimore, Maryland

Mary Catherine Wilkins**
Technical Assistant
National Alliance Concerned with School-Age
Parents
Washington, D.C.

**Assistant Conference Chairperson

exhibitors

Agency for Instructional Television
Box A
Bloomington, Indiana 47401

American Association of Marriage and Family Counselors
225 Yale Street
Claremont, California 91711

American National Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006

Appalachia Educational Laboratory
P.O. Box 1348
Charleston, West Virginia 25325

Children's Defense Fund
1746 Cambridge Street
Cambridge, Massachusetts 02138

Colorado Dairy Council
12450 North Washington
Thornton, Colorado 80241

Education Development Center—West
Colorado Women's College
Montview at Quebec Streets
Denver, Colorado 80220

Food and Nutrition Service—West-Central Region
U.S. Department of Agriculture
1100 Commerce Street—Room 5-D-22
Dallas, Texas 75202

Humanics, Inc.
881 Peachtree Street, N.E.—Suite 114
Atlanta, Georgia 30309

Institute for Family Research and Education
760 Ostrom Ave.
Syracuse, New York 13210

Journal of Current Social Issues
287 Park Avenue South
New York, New York 10010

Mead Johnson Laboratories
3104 Pennsylvania
Evansville, Indiana 47221

National Council for Homemaker—Home Health Aid Services, Inc.
67 Irving Place
New York, New York 10003

National Foundation-March of Dimes
1275 Mamaroneck Avenue
White Plains, New York 10605

National Institute of Mental Health
Alcohol, Drug Abuse, and Mental Health Administration—DHEW
5600 Fishers Lane
Rockville, Maryland 20852

Parents' Magazine Films, Inc.
52 Vanderbilt Avenue
New York, New York 10017

Perennial Education, Inc.
1825 Willow Road
Northfield, Illinois 60093

Public Communications, Inc.
125 Church Street
Vienna, Virginia 22180

Social Services: Quo Vadis?

By Robert O. Wyllie

A critical milestone in shaping the destiny of social services has recently occurred with the passage of Title XX. Now the question is—where do we go from here? New challenges face us. What modifications of the present social services system must state administrators address themselves to with the enactment of Title XX? What short- and long-term goals need to be established in order to implement the legislation? What social services delivery policies need evaluation in the light of the legislation?

The History

The passage of Title XX can best be evaluated by placing it in the perspective of other milestones in the development of our present national social services commitment. According to Wilbur J. Cohen, former HEW secretary and a force in social services legislation for over thirty years, the first social services appropriation was requested in 1949 when a bill was introduced in the Congress which referred to federal monies needed for state matching for categorical programs providing both financial payments *and services*. Reaction from members of Congress at that time was typically conservative, and the idea gained little support. Nevertheless, Cohen and others concerned about the paucity of services directed toward the vulnerable target population of families and children receiving AFDC benefits continued to work for a program. As the result of these continuing efforts, the social services needs of public welfare recipients were initially confirmed as a federal responsibility in the mid-1950s with the introduction of legislation providing federal matching for services to these target populations. The wording of the legislation identified "self-care" and "self-support" as legitimate goals for purposes of federal matching. In 1962 the original legislation was broadened to mandate matchable costs for those social services provided not only to present public welfare recipients but to former and potential recipients as well.

Our present acceptance of social services as a right for the broader community, irrespective of economic status, emanates from the Social Security Amendments of 1967. The 1967 amendments significantly altered the thrust of social services programs and projected a potential leadership role for welfare agencies in the planning, development, evaluation, and promotion of public social services.

Title XX is now law, and with its passage long months of uncertainty, characterized by both productive and counter-productive activity, have ended. Those months included the promulgation of potentially untenable restrictive regulations by HEW, precipitating a barrage of protest directed toward both the Department of Health, Education, and Welfare, and the Congress. Frustration was experienced at all levels of government as a result of the constant state of change and day-to-day uncertainty in social services planning and administration. There were charges and countercharges as to whether or not "someone" was trying to scuttle social services completely.

The Now

With that period of action and interaction behind us, we are now faced with a whole new range of tasks and challenges at the federal, state, and local levels. The most pressing immediate challenge i the expeditious promulgation of interpretive regulations surrounding the implementation of the legislation by HEW. Equally important is implementation of the legislation in a manner that effectively responds to the social services needs of a potentially broader community than we have previously served, and that maximizes the availabl federal dollars through appropriate managemen decision making. The former critical task is primarily the responsibility of HEW, the latter equally critical, task is primarily the responsibility of the state and local administrations. At both the federal and state levels it is imperative to adopt a facilitating role to assure that the social service system is a responsive and efficient one. These task cannot, and must not, be mutually exclusive, bu rather must be developed in the same "give an take" manner which characterized the drafting o the new Title XX legislation.

Dickens' novel, *A Tale of Two Cities*, begin with the famous quote, "It was the best of times it was the worst of times." This statement is a peculiarly adequate description of the present state o public welfare, social services, and social policy Never has there been so much concern about s many social problems to be financed with so fe dollars and with such limited program suppor data. It is the best of times in terms of emergin community concern about needed social service and awareness of social problems such as menta illness, alcoholism, drug abuse, and the needs of th aging and developmentally disabled. There is beginning to be an expressed willingness to respond t these needs and concerns, yet it is the worst of time in terms of a total national commitment to an adequate funding of a comprehensive, integrated human services system. In our age of advanced nu

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Robert Wyllie is director of the Bureau of Social Welfare, Maine Department of Health and Welfare. He was until recently vice-chairman of the social services committee of the APWA National Council of State Public Welfare Administrators.

Reprinted by the National Alliance
Concerned with School-Age Parents
from PUBLIC WELFARE, Vol. 33, No. 2,
Spring 1975, with permission of the
author and publisher (American Public
Welfare Association, 1155 Sixteenth
Street, N.W., Suite 201, Washington,
D.C. 20036).

clear technology, in our commitment to increased defense spending, we have tended to lose the desirable balance between developmental knowledge and financial support in these vital areas, and a concomitant support and responsiveness to the common human needs of the American people.

The passage of Title XX requires that state and local public welfare agencies take a leadership role in helping to effect this balance of emphasis. There is a noticeable tendency prevalent now at the federal level to focus attention on a management-oriented approach to social services delivery, to the exclusion of a recognition of the human needs to which the programs should respond. These two emphases need not be diametrically opposed; they can and must, in fact, be complementary.

The Future

To assure than states design, implement, and gain support for a social services program responsive to the needs of its citizenry, there must be recognition of the need for added emphasis in three major areas:

1. Public awareness of, and support for, comprehensive social services.
2. Competence in designing methods by which we can work with communities in assessing and ordering social services needs.
3. Increase in the planning, reporting, and evaluation capabilities of our agencies, in order to support with "hard" data what it is we are doing, what it is costing, and what the results are.

To attain these goals, we need:

1. *Aggressive leadership by public welfare agencies.* Our experience in Maine confirms the fact that legislatures will respond to requests for social services funding when the need is documented and the demand by constituents is clearly heard. At the same time, they appropriately demand accountability for the results of that investment. Maine's experience is not unique but is representative of new demands for accountability being placed on all public agencies, including the welfare agency, and given further visibility by Title XX. Aggressive leadership is the key to assumption of new tasks imposed by Title XX and to attainment of the three goals stated above. Such leadership at the state level is imperative because the agency responsible for overall administration of Title XX will no longer necessarily be the public welfare agency (other agencies may be designated by the governor if they are considered better qualified). The value and responsiveness of the state social services plan will directly reflect the competency of leadership, and the development of adequate information reporting systems will be critical in assuring the future of social services in a given state.

There will be those who will argue that some public welfare agencies have always assumed such a leadership role, and I would agree. The point here is the new dimension of demand incumbent upon every public welfare agency charged with the responsibility of developing a state plan acceptable to the people of the state, including consumers, other agencies, the taxpayer, the legislature, and the governor, in addition to HEW for some portions of the plan.

Title XX focuses heavily on two *Ms*: management and measurement. While these are important and critical, we must be certain that they interrelate appropriately with the basic philosophy of human services and sound social work practice. It is this latter consideration which defines the additional leadership role public welfare agencies must play. If we are concerned about the *quality* of a child protective service, if we are concerned about the *quality* of our adoption service, our homemaker service, our meals for the elderly service, a range of after-care services for persons leaving our institutions, etc., we must take a leadership role in assuring that that *quality* focus is kept. Specifically, we should be certain that at the federal level there are competent specialists available to provide the types of technical assistance states will require in order to build, and/or maintain, the quality as well as the quantity part of social services programs, and that they are available in sufficient numbers to respond to the needs of several states simultaneously should the need arise.

We are the appropriate agencies to pick up the challenge of maintaining an equal emphasis on quantity and quality, and to ensure that progress will be made in achieving this integration under Title XX.

2. *Information systems which clearly delineate our services and which identify the associated objectives in measurable terms.* Quite appropriately, there will continue to be more demand on us for accountability in terms of results-oriented services and identification of costs of services delivered. We know now that social services can be reduced to measurable terms and units of service can be costed out; we have had some experience with these kinds of systems. Federal legislation has not defined services, so we must, in order to explain to staff, consumers, and the community what it is they can expect if they contact our agencies or those with which we contract services. Our experience in Maine has been a fruitful, albeit stormy one, because we have a basis from which we can

identify for people what it is we do, what our services are—and we have a beginning answer to "at what cost?" At the federal level, technical support in assisting states to establish management information systems suitable for their individual needs has already been pledged. Such technical assistance is critical, but from our experience that alone will not assure the development and implementation of a reporting system unless there is also some federal fiscal assistance to states, particularly to those which have reached the limit of federal matching for social services expenditures. To capitalize on the data generated by this system, public welfare officials need to invest a considerable amount of time in planning data needs so that the reports are meaningful to management personnel and to ensure that the data generated by the systems responds to the needs of management rather than vice versa.

3. *Promotional efforts.* Title XX gives no assurance that the public welfare agency in a given state will be delegated responsibility to administer the social services program. The single state agency concept that services should be provided by the same agency responsible for income maintenance has been deleted in the new legislation. We as public welfare agencies are by and large, however, limited in bargaining in the marketplace for recognition of our expertise in providing a variety of quality social services at a reasonable cost. Title XX may set the stage for just such a situation. With the passage of this legislation, for example, we may well have to defend to the supervisory or administrative authority our competency to deliver discrete services at the same or higher quality and at the same or lower cost than another given agency. Up to the present we in public welfare agencies have encouraged and welcomed partnership efforts with other public and private agencies so as to more comprehensively meet the social services needs of people. We may now find ourselves in competition for the same dollars unless federal dollars increase as demands increase. We must be prepared to do a job of selling our services and our capability to perform in the services arena to assure that in the distribution of limited service dollars we can adequately compete for recognition and support. We do have experience, we do have competence, we do have management capability—let's promote it.

4. *Methods which effectively involve community in development of an annual social services plan.* It is self-evident that for services to make any sense at all they must be responsive to the needs of the constituent community. However, involving the community effectively in planning may present some difficulty. Technical assistance to states from the Department of Health, Education, and Welfare will be critical to assist states in a viable evolution of an effective state-community relationship. This technical assistance is needed now because of the relatively short time alotted for states to prepare for implementation October 1, 1975. We urge the Department of Health, Education, and Welfare to give such technical assistance top priority in order to enable states to meet the strict time constraints of the services plan publication schedule. The experience of a number of states affirms that a services plan evolved in such a fashion is far more responsive to needs, and receives much more community acceptance, support, encouragement, and funding. Community involvement, including participation by low income consumers, is an integral part of our Maine agency's planning now, the result being more and better services as the byproduct of that partnership effort.

It was Victor Hugo who wrote: "Greater than the tread of mighty armies is an idea whose time has come." The idea that social services are an important part of society's responsive commitment to the needs of its people and that the state and community must assume a more active role in shaping that response to the needs of its constituents within the permissive limits of the legislation, are all part of an idea . . . "whose time has come."

As I have tried to convey throughout this paper, the passage of Title XX resolves many problems while at the same time it creates new challenges for us as public welfare agencies. I remain concerned that with the passage of this legislation the vision of the need to address a broader, integrated human services problem will be lost. Despite the strides taken with the passage of this legislation, it does not address the larger issue of fragmentation of delivery and funding of human services programs. We now have Title XX services and funding, services and funding for the developmentally disabled, the elderly, the person in need of rehabilitative services, the child in need of protective services, emotionally disturbed children—each program independently funded, frequently at differing percentages of federal matching. The result (even with the most cooperative discussion about the need to integrate services, the need to avoid duplication, etc.) will be the continual entrenchment of programs and services geared to specific target populations, some of which are mutually exclusive, but most of which are duplicative to some extent. There will certainly not be sufficient monies to meet the service demands of all target populations in the foreseeable future, and all of us administering programs must examine our priorities with these fiscal limitations. We must find ways to stretch available service dollars as far as possible, and one of these ways is to reduce duplication.

Conclusion

We need an impetus to begin planning together on a coordinated approach to human services. Such an impetus could come from the Department of Health, Education, and Welfare and the Congress in a renewed effort to pass legislation similar to the Allied Services Act. Lacking that leadership, Title XX can, in fact, be the needed catalyst in helping us address the problem of planning social services so as to stretch services dollars as far as possible, while providing the quality resources our citizens need and deserve. This is the new and exciting milestone facing us now.

Adolescent Pregnancy—A Pediatric Concern?

Elizabeth R. McAnarney, M.D.

AMONG THE MAJOR FACTORS which have been found associated with pregnancy during the adolescent years are previous pregnancy during adolescence,[1,2] paternal absenteeism, and a family history of teen-age pregnancy.[3,4] Young people mature earlier today than in past generations[5] and seem to become sexually active at an earlier age. Kantner and Zelnick estimate that in 1971 approximately 28 per cent of unmarried women 15 to 19 years of age, and 46 per cent of unmarried women at age 19 years had had coital experience.[6] In comparison, two decades earlier, only 20 per cent of adolescent females in the United States had had coitus, according to Kinsey.[7]

Teen-age pregnancy has serious medical, psychologic, educational and social consequences. Despite increasing availability of contraception in the United States, of the 601,000 babies born to girls less than 20 years of age in 1968, some 200,000 were born to adolescents 17 years or less in 1968. The illegitimacy rate, as defined by the number of out-of-wedlock births per 1,000 single women in a specific age group, rose from 16.0 in 1961 to 19.8 in 1966 among girls aged 15 to 19 years.[8] It seems that two out of every 100 unmarried girls 15 to 19 years of age in the United States become pregnant every year.[9]

Pregnancy during adolescence results in higher maternal morbidity and mortality rates than pregnancy in women in their twenties. Indeed, the younger the teen-ager, the more likely she is to have medical problems during pregnancy, labor, and delivery. Toxemia, anemia, cephalopelvic disproportion, and prolonged labor are the major obstetric complications of adolescence.[10-12] Babies born to young mothers have higher prematurity and mortality rates than babies born to mothers in their twenties.[13-16]

In addition to the numerous medical problems of adolescent pregnancy, these girls face major educational and social problems both during pregnancy and after delivery. Educational difficulties frequently precede adolescent pregnancy and once pregnant, girls tend to drop out of school permanently.[17] Social problems include precipitous teen-age marriages which are often unstable.[18] Children born to young mothers may have

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From the Adolescent Program, [illegible] University of Rochester School of Medicine and Dentistry, Rochester, N.Y. [illegible]

Correspondence to: Elizabeth R. McAnarney, M.D., [illegible] Rochester, N.Y. [illegible]

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chronic health problems with prolonged social significance and expense.[20,21] Pakter reported that death rates from respiratory infections and accidents were twice as common among babies born out-of-wedlock than in those of married mothers.[22] In 1965, it was estimated that society spent an average of $100,000 on a mother and her illegitimate offspring during the mother's reproductive lifetime.[23] Currently, these expenses would be considerably higher.

As a health problem, teen-age pregnancy is multifaceted and possibly preventable. What should be the pediatrician's role in providing care for sexually active and pregnant adolescents?

The Pediatrician and Teen-Age Pregnancy

The degree to which a pediatrician provides care for sexually active and pregnant teen-agers depends upon his training, knowledge, and interest in adolescents, and his comfort in working with teen-agers and their sexuality.

He can serve as a diagnostician of pregnancy, counselor, health educator, referring source, and coordinator of care.

Diagnostician of Pregnancy

Concerned about pregnancy, many teen-agers seek medical advice from their pediatrician first. Adolescents presenting complaints other than possible pregnancy may include abdominal pain, headaches, malaise, fatigue, or other nonspecific symptoms. Not until the doctor asks for specific gynecologic history and inquires about the adolescent's last menstrual period does he elicit the possible diagnosis of pregnancy. Most girls are relieved by the doctor's finding that they have been amenorrheic and when asked if they are worried about pregnancy, finally express their real concern.

Once the pediatrician becomes aware of the possibility of pregnancy, he may refer his patient directly to an obstetrician, or may first seek to study the girl in his office. The workup consists of a general medical and gynecologic history, inquiring about menses, vaginal symptoms, and her sexual and contraceptive knowledge. He should carry out a general medical and a pelvic examination. A urine test for pregnancy is obligatory, though the limitations of the test being used should be understood. Should pregnancy be confirmed, he should explore whether the adolescent has any plans for her pregnancy and should refer her to an obstetric facility.

Counselor

Pediatric responsibility for the care of teen-agers does not end with obstetric referral. Most pregnant girls need supportive care in their social and psychologic problems related to their adolescence and pregnancy. Psychologic care may be provided in his office; if he has more than one pregnant patient in his practice at that time, he may start a group. Group conferences with pregnant teen-agers ameliorate the isolation feelings these girls have.

Supportive care individually or in groups should include exploration of teen-agers' feelings about being pregnant, plans for pregnancy, their futures, and their babies' futures. Numbers and length of sessions will vary according to individual needs.

If the patients' psychologic concerns are too complex for pediatric care or if the pediatrician does not wish to follow pregnant girls in his office, he should refer them to another individual or agency providing specialized psychosocial services.

Health Educator

Adolescents who are pregnant ask many of the same questions about their teen-age growth and development as do their nonpregnant peers. The younger the girl, the less knowledgeable she may be. The impact of pregnancy on a girl, her family and others close to them may be so great as to overshadow her many other needs as an adolescent. For many such girls do not have adequate knowledge about their general growth and development and their sexuality. One survey brought out that 60 per cent of the respondents thought that a girl could become pregnant as soon as her period began; there was little difference in responses between sexually active girls and those claiming not to be sexually active.[7]

Pregnant teen-agers going to term should know about the physiology of labor and delivery, breathing exercises, and what to expect at the time of delivery. The pediatrician should either give such information himself or make sure that it is being furnished by the obstetrician or his associates. Most girls in their last trimester are interested about the newborn child, what he will look like, and what he can do.

Referring Source and Coordinator of Health Care

If he does not give counseling himself, this should be arranged for through a local mental health center or youth center, or through private social workers, counselors, psychologists, or psychiatrists, depending on the patient's needs and capacity to pay. The adolescent who plans to give her baby up for adoption should be referred to a local social service agency early in pregnancy, to give the social service professionals enough time to establish rapport with her. She may benefit from referral to a group for prospective mothers, where she could share her experience with others like her. The young mother who keeps her baby should receive public health nursing guidance in her home about her newborn.

The pediatrician may send an adolescent to a source of care, but she may not get there. Follow-up is therefore often necessary. An adolescent not conversant with the health care system and feeling disturbed and reluctant may have difficulty following through on recommendations that seem simple to the physician.

The Pediatrician and the Nonpregnant Teen-ager

The pediatrician can play an important role with teen-agers worried about pregnancy who are not pregnant. A negative pregnancy test should not indicate to the patient or the physician that there is no further concern. These teen-agers are at a high risk of pregnancy in the future.

The pediatrician would be wise to initiate a discussion with the nonpregnant but concerned teen-agers about their knowledge of growth and development, and particularly sexuality.[8] If they are sexually active but not using contraception, they should be instructed about it and its availability. He may provide the gynecologic and contraceptive care himself or he may refer them to a gynecologist or to a community agency such as Planned Parenthood for their contraceptive attention. But prescription of contraception alone does not meet the adolescents' entire needs; they require as much counseling and education as do their pregnant peers.

Including the sexually active boys in preventive contraceptive care is ideal, but often difficult to achieve, particularly when the girl comes to the physician as the identified patient. However, the pediatrician should try to encourage not only the girls who are coming to him with these problems but also their boyfriends, for instruction about contraceptive care.

Final Comment

Each individual physician must decide for himself how he will care for sexually active or pregnant teen-agers. The pediatrician must recognize his patients' needs in the areas of sexuality and pregnancy, and be responsive to their needs either by providing care himself or referring them to other health care sites. Because he has known his patients over the years, he may be the first one to whom a teen-ager turns and in whom she will confide. He must be prepared to respond with concern and knowledge.

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THE ROLE OF THE GRANDMOTHER IN ADOLESCENT PREGNANCY AND PARENTING

Eleanor Wright Smith, R.N., M.S.

Eleanor Wright Smith, R.N., M.S., is Assistant Clinical Professor, Department of Family Health Care Nursing, University of California, San Francisco, California.

Less than a decade ago many unwed adolescents who carried their pregnancies to term released their infants for adoption. Thus, a primary task of the professionals working with pregnant teenagers was to help them through the difficult process of relinquishing the newborn infant and to provide guidance for a rapid and smooth resumption of former roles. Today, most young women who give birth, in or out of wedlock, plan to keep and rear their children themselves. Howard[1] states that 85 percent of teenage mothers throughout the United States keep their children; more recently, Zelnik and Kantner reported that 18 percent of illegitimate first children of white women are released for adoption compared to two percent of illegitimate first children of black women. Beginning in the 1960s, early marriage and early childbirth within marriage decreased, while childbirth outside marriage increased[3] and continued to rise throughout the sixties. The legalization of abortion modified these statistics temporarily but recent figures point to a new rise in out-of-wedlock childbirth among teenagers. In California alone the illegitimate birthrate actually rose by nearly three percent in 1972 and another three percent in 1973, even as nonwhite illegitimate births declined, albeit by very little.[4] Morris has reported that the percentage of mothers not yet out of their teens is increasing among both married and unmarried women.[5] This continued increasing fertility in the teenage population and the determination of most of these young mothers to keep and rear their children pose new and difficult challenges for health professionals, educators, and social workers. Our major task now is to provide medical, educational, and social supports to teenage families and to continue such support as young parents strive to mother their children.

Until recently, members of the pregnant adolescent's family were not closely involved with the professionals working with the teenage mother. If she was living in a residence for unwed mothers, the focus was on the young woman and on her adoptable baby; if she was from a poor family, she frequently received little prenatal care or professional assistance of any kind.

Today, family members often are intimately involved. The teenager who plans to keep her child generally remains in her home during her pregnancy and her mother is usually, to some degree at least, responsible for care of the the infant. The need to work with the young woman's family, and especially with her mother, is increasingly apparent. These family members can provide at least some of the essential continuing supports the young woman will need in order to adequately mother her child. Thus, the concerns of the mother of the adolescent pregnant girl and the ways in which she can be helped to cope with the problems accompanying her daughter's early motherhood are of prime interest. Other members of the young woman's family and the father and *his* family may, and usually do, play a significant part in the life of the new mother and her child, but this paper will focus primarily on the grandmother-mother-child relationship as it develops during pregnancy and early parenting.

Of course the young woman's mother may not always be available; she may be deceased or far away, or the relationship between the two may have always been so poor that it would not be productive to bring them together. In any event, the situation should be carefully explored. Frequently a close, warm, mother-daughter relationship may temporarily deteriorate with the adolescent's struggle for independence and autonomy. With the added stress of pregnancy, the conflict between mother and daughter may be magnified in the girl's mind. Sensitive contact with both mother and daughter can reinforce whatever positive elements and strengths are available. If this is not possible, perhaps a mothering person, a grandmother, foster mother, or older sister can meet some of the mothering needs of the "motherless" young woman. Nurses, social workers, and teachers often provide

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additional mothering during the crisis of the pregnancy and childbearing, when the young woman's dependency needs and receptivity are so great. However, this assistance is necessarily temporary and some ongoing source of nuturing should be sought.

An earlier paper by this author focused on the role transition the mother of the pregnant teenager experiences as she strives to form a new relationship with her daughter who is becoming a mother, and finally to relate as a grandmother to her grandchild. A variety of data from unstructured interviews with mothers and daughters, field notes, and group work with both mothers and daughters were cited in that paper.[4] This presentation will build further upon that structure, drawing on continued experience with pregnant adolescents and their mothers both in a Well Baby Clinic for Adolescents and Their Children and an Adolescent Maternity Clinic.

INITIAL REACTIONS OF THE MOTHER TO HER ADOLESCENT DAUGHTER'S PREGNANCY

The few studies that have examined the role of the mother of the pregnant adolescent have described her initial reactions and feelings as encompassing shame, shock, guilt, anger, and sorrow.[4,5] Despite a persistent misconception among professionals, minority families do not usually accept the pregnancy of an unmarried girl and unqualifiedly welcome her baby; in reality, the family often is angry and unaccepting. They are concerned with social disgrace, financial burden, and all the problems an additional child means to an already overburdened family.[7] The reaction of the mother in lower class black families, as described by Wright, et al, is characterized by anxiety and severe stress resulting in temporary unproductive hyperactivity. These mothers were deeply disappointed, as they had hoped for a better life for their daughters than *they* had been able to achieve, and now their daughters appeared caught in the same bind as they themselves had been. Byran-Logan and Dancy[8] see the adolescent pregnancy as a crisis for the whole family, with the mother in particular viewing it as a reflection of her own inadequacy as a parent. The failure of a daughter to conform to expected behavior and the threat that pregnancy will hinder achievement of educational and social goals important to the mother elicit feelings of sorrow and disappointment. Often the mother's discovery of her daughter's pregnancy is a crisis that upsets the equilibrium of the whole family, causing severe emotional and financial strains. Commonly the immediate response of the mother is shock, anger, self-questioning ("What did I do wrong? What *didn't* I do?") and profound sorrow for her pregnant daughter—sorrow for the loss of what the mother hoped would be happy, irresponsible years, gone forever with the assumption of the adult responsibilities of childbearing and childrearing. Again, these mothers put a high value on education and were fearful their daughters would be unable to continue school.[6]

Also mothers often expressed concern for *themselves*. The mother of a pregnant adolescent may be a young woman still, perhaps just beginning to see some freedom from responsibilities toward her own children. Some are planning to get jobs, to further their education, or just to begin enjoying a period of their lives when they might satisfy some of their own needs. Typically, becoming a grandmother—especially when this may mean having to assume at least part of the responsibility for a daughter and her child—is unexpected and unwelcome. In our youth-oriented society, becoming a grandmother has connotations of aging, of becoming less important, and of decreasing value to society—something women in their thirties and forties are not at all ready to accept. One mother expressed her feelings this way, "I was shocked at the thought of being a grandmother. I've colored my hair for a long time and I stopped that and let it go. If I had to be a grandmother, I was going to go the whole bit!" Several women expressed anger toward their daughters for "making me a grandmother."

EARLY INTEGRATION AND PLANNING

After a preliminary period of disequilibrium, there seems to be a more stable period when both mother and daughter begin to take steps toward solving some of the problems presented by pregnancy. Prenatal care for the young mother-to-be and the need to investigate ways of continuing her education are the immediate concerns. Thus, at this time they will encounter professional help. The school nurse, counsellors, and teachers can offer valuable help and reassurance about the possibilities for continuing education. In many communities the young pregnant woman may remain in her own school and special classes are often provided for her; in other communities, public school systems have developed programs which offer comprehensive facilities (continuing education, health services, and social services) for the pregnant adolescent and her family. Occasionally the only choice will be to continue schoolwork with a home teacher. This prevents both the young woman and her mother from sharing their concerns with others in similar situations. Hopefully the rapid growth of programs for pregnant teenagers (programs such as those stimulated by efforts of the Consortium on Early Childbearing and Childrearing and the National Alliance Concerned with School-Age Parents) will soon reach areas which have not yet been able to provide these much-needed services.

When the young mother-to-be enters prenatal care, she and her mother usually make their first contact with health professionals. Frequently the mother brings the pregnant adolescent to the clinic or private physician, and the manner in which mother and daughter are accepted can have a profound influence on the future course of the pregnancy. The shame and guilt which both mother and daughter customarily feel make them extremely sensitive to the actions of others. Although the young woman is always clearly the patient and should be treated with all the respect and concern that would be accorded a more adult pregnant woman, the mother can be helped by the health team to see herself as an important participant in the care of her daughter. This mother has given birth herself but there have been many changes in obstetrical care and childrearing practices. These are areas of potential conflict between mother and daughter, particularly when the daughter has had the opportunity to learn about modern obstetrical and infant care and the mother has not.

Also, at this early stage, various options for resolution of the dilemma of unwed pregnancy are considered by mother and daughter. Marriage is usually discussed but it is no longer so common for mothers or their daughters to see marriage as a necessary step. There are many indications that teenage marriages, especially when pregnancy and parental coercion are involved, are unlikely to be either happy or lasting. Such marriages thus provide little satisfaction for the young couples or support for their infants. For the older and more mature teenagers, marriage may be a valid option but much help from family and community will be needed for them to build a firm and solid relationship to support themselves and their child.

Abortion is another option which is considered and is a subject which can produce deep conflict between mother and daughter. The mother may see abortion as the only feasible solution. If she seeks to arrange for an abortion, she is often shocked to learn that it is the right of her daughter to make this decision for herself. As one mother said angrily and tearfully, "She is a child and I am responsible for her. I'll have to be responsible for both her and her baby! Is that right? Is that fair?" Frequently, however, by the time the pregnancy is confirmed it is too late for an abortion to be performed and often neither mother nor daughter see this as an acceptable choice.

EARLY INVOLVEMENT IN THE PREGNANCY

Once these decisions are made and the pregnancy continues, there seems to be another period of rather shaky equilibrium. Although not yet really accepted, the fact of the pregnancy has become more tolerable. Mothers begin to talk about what will be needed for the baby, how the household will be arranged to provide a room for the daughter and her infant, or what living arrangements the young couple might be helped to make. Plans may be made for care of the infant upon the daughter's postpartum return to regular schooling. The mothers buy small gifts for the baby, and their daughters report that they can jokingly call their mothers and fathers "grandma" or "grandpa" and that "they don't seem to mind."

During this period the health team can often very successfully involve the grandmother-to-be in group sessions for grandmothers or in mother-daughter group sessions, as well as in individual counselling. Many women express interest in learning more about what the experience of labor and delivery will be for their daughters and acknowledge a need to update their information about infant care. They are usually very much interested in birth control methods, relating this information to themselves, their pregnant daughters, and their other children. They seem to see themselves as carriers of wisdom to the young mother-to-be.

It can be very productive for members of the health team to work with these mothers. Nurses, social workers, nutritionists, and physicians can enlist interest and concern, especially when the mother understands her daughter's needs and the principles of her obstetrical care. Educators involved with her in her continuing schoolwork can also find an interested partner whose goal, like theirs, is to help the young woman continue her schoolwork and prepare for productive and meaningful life work. These mothers can reinforce and help implement the medical, psychosocial, and educational goals of the professionals working with their daughters, if they are informed and involved. Even more important for the future of the young family is improvement in the relationship between mother and daughter which can flow from taking the opportunity to share her concerns and anxieties with other mothers facing a similar situation and with members of the health team. One mother summed this up when she said, "I didn't know anyone cared what I think and feel." The experience of being able to communicate her feelings to others who are interested and empathetic may well help her communicate with her daughter with greater ease and understanding.

THE MOTHER FACES THE REALITY OF THE PREGNANCY

During the last trimester as the physical changes of pregnancy become more and more apparent in her daughter, the mother seems better able to view the pregnancy as a reality. "I looked at my daughter the other day," said one mother, "and all of a sudden I thought, 'She's going to have a baby. There really *is* a baby.' That sounds silly, I know. We've talked about the baby, we've bought things for it, we've made plans. But I think that was the first time I really believed it." Daughters often report that their mothers appear more accepting of the baby at this point. One said, "Mother really seems to be happy about my baby now." Another reported, "Mother put her hand on my stomach and said, 'my grandbaby kicked me.'"

During the last trimester of the pregnancy, mothers and daughters often realize a change is taking place in their relationship. Frequently they speak of a developing closeness between them. The mothers talk of their own pregnancies and seem to relive them while sharing feelings and information with their daughters,[8] and the daughters ask questions about their mother's pregnancies and anticipate with their mothers what their own experience will be. Both mothers and daughters sometimes speak of their relationship as becoming more like that between two women than between mother and child. The daughters feel able to talk with their mothers because "they have been through this too." One mother said, "We've gotten awfully close, not exactly in a maternal way but as if we are two women sharing something."[4]

Mothers ask many questions about labor and delivery focused on how their daughter's experiences might differ from their own. They appear to see this as part of a grandmother's role now and to believe that the grandmother should be a source of wisdom for the young mother. Several investigators have reported this changing relationship between mother and daughter during the course of a pregnancy which the two have been able to share. Even when mothers are far away, daughters many times feel a compulsion to communicate with their mothers as delivery approaches.[9] Friedman, who worked with young women in a maternity home planning to release their infants for adoption, mentioned that even when a young woman had been most concerned about keeping her pregnancy a secret from her family, her mother somehow "mysteriously" learned of it before the delivery. A new and better relationship between mother and daughter can conceivably develop out of circumstances surrounding an out-of-wedlock pregnancy, according to Friedman. Bibring relates the reactions of a young primapare who had achieved independence from her mother, had been happy to get away from home, and yet found herself deeply needing to discuss her feelings about being a mother with her own mother.[10] Van Der Ahe reported that the majority of the population in his study found themselves more able to communicate, particularly with their mothers, during their pregnancy.[11] One young woman whose mother had refused to communicate with her when she learned of the pregnancy, poignantly confided, "Having my baby was the most real thing that ever happened to me. When my baby first moved, when I first heard my baby cry, I wanted so badly to share this with my mother."

DEVELOPING THE GRANDMOTHER-MOTHER-CHILD RELATIONSHIP

After the birth of the baby the mothers still seem to be struggling with taking on a grandmother role. One said, "My daughter runs around looking just like a teenager. She just doesn't look like a mother at all." Another expressed her concern in another way, "It's all mixed up about connecting and separating the three of us—that that is my daughter's baby, that my daughter is a mother, that she isn't just my daughter." For some young mothers there seems to be a need for dependency and they can accept help and grow from their mother's store of experience and wisdom. For others, there seems to be an intense need to be independent, to "do it myself," and they see help from their mother as interference.[12] In either event, the grandmother can only attempt to understand her daughter's needs and be willing to accept dependence or independence, according to the cues she gives. The young mother appears to need to establish a clear identity in her role as a mother before she can allow her own mother the privilege of becoming a grandmother.[4]

The genesis of mothering is in childhood when the girl's experience of mothering sets the pattern for the future.[13] During girlhood she continues to experience mothering and to observe and integrate many models of mothering. With pregnancy, the process is intensified as she relives and redefines herself in her relationship to significant others and to her child-to-be. The support a mother gives her daughter at this crucial time, her caring and empathy can increase the younger woman's confidence in herself and her ability to become a mother. After the birth of the baby the mother-child relationship flowers, and giving and accepting adequate mothering from her own mother (now a grandmother) nourishes this process. The intimate contact of holding, feeding, and bathing her child has a stimulating effect on the teenager's motherliness. Her feelings of competence grow as her child responds to her ministrations, and gradually the young mother grows secure in her ability to care for and love her child. The gratification a grandmother experiences as she sees her daughter mature and become a loving-giving mother may develop more slowly when the daughter is an adolescent. But many adolescent women with adequate supports can become nuturing mothers.

The very young or immature adolescent may have a special need to achieve her own developmental goals and these needs may interfere with her ability to be a mother at the time of her child's birth.[9] The task of *her mother* is a most difficult one. She must mother her daughter as she encourages and facilitates her maturational processes and at the same time support the daughter's beginning efforts at mothering. Often she must also be the primary giver of loving care to her grandchild. Whatever tasks the young mother can adequately perform for her child will increase her feelings of confidence and strengthen the tenuous but growing mother-child bond. As her child thrives, if the young mother can feel she has had some part in his healthy development, her pride and feeling of competence increase. The grandmother's task now is a gradual relinquishment of the parental role toward her grandchild as her daughter becomes able to assume this role with her child. When mothers and daughters have developed a satisfying and productive relationship with the health team, especially with social workers and counsellors, both may find support in working through this process.

CONCLUSION

Although childbearing in the United States has declined in recent years, births to teenagers are becoming an ever larger proportion of all births. Furthermore, the young mothers who are bearing children are keeping them and attempting to rear them themselves. The focus of care for pregnant adolescents has thus shifted from concern for teenage pregnant girls to concern for adolescent families and their needs. Professionals who work with these young women and their families encounter them in the crisis period of pregnancy, childbirth, and early mothering. But the continuing needs of young parents extend far beyond this period.

By mobilizing support from significant figures in the young woman's own life and involving them in plans for her care and future support in rearing her family, we can ensure continuing fulfillment of her needs as she copes with the developmental tasks of motherhood. Often, especially for the adolescent mother, her own mother is the most significant figure. If a good relationship can be fostered between mother and daughter and the very normal conflicts between them eased, the young woman may be more able to complete her own education, fill her own developmental needs, and provide adequate mothering for her child. Understanding the concerns and problems of the mother of the pregnant adolescent and providing her with the supports that *she* needs in order to guide her daughter toward motherhood can often be the key to a healthy mother-child relationship between the adolescent mother and her infant. Simultaneously the adolescent's mother may find gratification and pleasure in a new developmental phase in her life as she becomes a grandmother.

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Editorial assistance provided through University of California, San Francisco, Nursing Research Development Project, USPHS NU00427, is gratefully acknowledged.

The author of this article is Eleanor Wright Smith, R.N., M.S., Assistant Clinical Professor, Department of Family Health Care Nursing, University of California, San Francisco, CA 94122.

SUMMARY OF THE REGULATION* FOR TITLE IX EDUCATION AMENDMENTS OF 1972

Title IX of the Education Amendments of 1972 says:

> "No person . . . shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance . . ."

With certain exceptions, the law bars sex discrimination in any academic, extracurricular, research, occupational training or other educational program (preschool to postgraduate) operated by an organization or agency which receives or benefits from federal aid. Exempted from the provisions of Title IX are schools whose primary purpose is training for the U.S. military services or the merchant marine and educational institutions controlled by religious organizations whenever compliance with Title IX would be contrary to their religious beliefs. In addition, the "Bayh Amendment" to Title IX exempts the membership policies of the Girl and Boy Scouts, the YMCA and YWCA, Campfire Girls and other single-sex "youth service organizations" whose members are chiefly under age 19. This special exemption does not apply to recreational youth groups such as Little League. Also exempted by the amendments are university-based social fraternities and sororities.

Basically, the regulation for Title IX falls into five categories: general matters related to discrimination on the basis of sex, admissions, treatment of students once they are admitted, employment and procedures.

The following summary was adapted by PEER from a summary prepared by the Resource Center on Sex Roles in Education of the National Foundation for Improvement of Education.

GENERAL PROVISIONS § 86.3 - 86.9

Each recipient of federal education aid must evaluate its current policies and practices to determine whether they comply with Title IX. Each recipient must then take whatever steps are necessary to end discrimination. Institutions must keep a description of these steps on file for three years, and they must complete the evaluation and steps to overcome the effects of bias within one year of the date the regulation takes effect.

The regulation also requires that recipients adopt and publish grievance procedures to resolve student and employee complaints alleging discrimination prohibited by Title IX.

ADMISSIONS § 86.21-86.23

The regulation bars sex discrimination in admissions to certain kinds of institutions: those of vocational, professional, graduate and public coeducational undergraduate institutions. Admissions to private undergraduate institutions are exempt, including admissions to private undergraduate professional and vocational schools. HEW will look at the admissions practices of each "administratively separate unit" separately.

Specifically, the regulation bars limitations (i.e., quotas) on the number or proportion of persons of either sex who may be admitted, preference for one sex, ranking applicants separately by sex, and any other form of differential treatment by sex.

The recipient may not use a test or other criterion for admission which adversely affects any person on the basis of sex unless the test or criterion is shown to predict validly successful completion of the educational program, and unbiased alternatives are not available. Also prohibited are rules concerning parental, family, or marital status of students which make distinctions based on sex, discrimination because of pregnancy or related conditions, and asking an applicant's marital status. Recipients can ask an applicant's sex if the information is not used to discriminate.

The recipient must make comparable efforts to recruit members of each sex, except when special efforts to recruit members of one sex are needed to remedy the effects of past discrimination.

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* 45 CFR Part 86. The text appears in the *Federal Register*, June 4, 1975, page 24128.

PEER, The Project on Equal Education Rights, is a project of the NOW Legal Defense and Education Fund. Funded by the Ford Foundation to monitor enforcement progress under Federal law forbidding sex discrimination in education. 1522 Connecticut Ave., N.W., Washington, D.C. 20036. Project Director: Holly Knox. Associate Director: Clelia Steele. Staff: Mary McKenzie, Robin Gordon, Lynda Weston, Cheryl Andrews.

SUMMARY (continued)

TREATMENT OF STUDENTS
§ 86.31 - 86.42

General coverage § 86.31

Although some schools are exempt from coverage with regard to admissions, all schools must treat their admitted students without discrimination on the basis of sex. Briefly, the treatment of students section covers courses and extracurricular activities (including student organizations and competitive athletics), benefits, financial aid, facilities, housing, rules and regulations (including rules of appearance), and research. A student may not be limited in the enjoyment of any right, privilege, advantage or opportunity based on sex.

The regulation forbids a recipient to aid or perpetuate sex discrimination by providing "significant assistance" to any agency, organization or person which discriminates on the basis of sex in providing any aid, benefit or service to students or employees (with some exceptions, including the membership policies of social fraternities and sororities, Boy and Girl Scouts, YMCA and YWCA). Significant assistance includes the provision of a facility or faculty sponsor.

Housing and Facilities § 86.32 and 86.33

Institutions may provide housing separately for men and women. However, housing for students of both sexes must be as a whole

- proportionate in quantity to the number of students of that sex that apply for housing, and
- comparable in quality and cost to the student.

Institutions may not have different housing policies for students of each sex (for example, if a college allows men to live off campus, it must allow women too).

Toilets, locker rooms and shower facilities may be separated on the basis of sex, but these facilities must be comparable for students of both sexes.

Courses and other Educational Activities § 86.34 and 86.35

Courses or other educational activities may not be provided separately on the basis of sex. An institution may not require or refuse participation in any course by any of its students on that basis. This includes physical education, industrial, business, vocational, technical, home economics, music, and adult education courses.

However, sex education is an exception: portions of elementary and secondary school classes dealing with human sexuality may be separated by sex.

In physical education classes, students may be separated by sex within coeducational classes when playing contact sports. Contact sports include wrestling, rugby, ice hockey, football, basketball, and any other sport "the purpose of major activity of which involves bodily contact".

Choruses may be based on vocal range or quality and may result in single-sex or predominantly single-sex choruses.

Local school districts may not, on the basis of sex, exclude any person from:

- any institution of vocational education,
- any other school or educational unit, unless th school district offers the other sex courses, services and facilities which are comparable to those offered in such schools, following the same policies and admission criteria.

Counseling § 86.36

A recipeint may not discriminate on the basis o sex in counseling or guiding students.

Whenever a school finds that a class has a disproportionate number of students with one sex, it mus take whatever action is necessary to assure itself tha sex bias in counseling or testing is not responsible.

A recipient may not use tests or other appraisal an counseling materials which use different material for each sex or which permit or require differen treatment for students of each sex. Exceptions can b made if different materials used for each sex cove the same occupations and they are essential t eliminate sex bias.

Schools must set up their own procedures to mak certain that counseling and appraisal materials ar not sex-biased. If a test does result in a substantiall disproportionate number of students of one sex in course of study or classification, the school must tak action to ensure that bias in the test or its applicatio is not causing the disproportion.

Student Financial Aid § 86.37

The regulation covers all forms of financial aid t students. Generally, a recipient may not, on the basi of sex:

- provide different amounts or types of assistance limit eligibility, apply different criteria, or otherwis discriminate,
- assist through solicitation, listing, approva provision of facilities, or other services any agency organization or person which offers sex-biase student aid,
- employ students in a way that discriminate against one sex, or provide services to any othe organization which does so.

There are exceptions for athletic scholarships an single-sex scholarships established by will or trust.

Athletic scholarships. An institution which award athletic scholarships must provide "reasonable op portunities" for both sexes, in proportion to the num ber of students of each sex participating in inte scholastic or intercollegiate athletics. Separate athletic scholarships for each sex may be offered in connection with separate male/female teams to the extent consistent with both the section on scholarships and the section on athletics (86.41).

Scholarships for study abroad. The regulation exempts discriminatory student assistance for study abroad (such as Rhodes Scholarships), provided that a recipient which administers or helps to administer the scholarship awards makes available reasonable opportunities for similar studies for the other sex.

Single sex scholarships. An institution may administer or assist in the administration of scholarships and other forms of student financial aid whenever a will, trust, or bequest specifies that the aid can only go to one sex, as long as the overall effect of making sex-restricted awards is not discriminatory.

To ensure this, institutions must:

- select financial aid recipients on the basis of nondiscriminatory criteria, not the availability of sex-restricted scholarships;
- allocate sex-restricted awards to students already selected in such a fashion; and
- ensure that no student is denied an award because of the lack of a sex-restricted scholarship.

Student Health and Insurance Benefits § 86.39

Student medical, hospital, accident, or life insurance benefits, services, or plans may not discriminate on the basis of sex. This would not bar benefits or services which may be used by a different proportion of students of one sex than of the other, including family planning services.

Any school which provides full coverage health services must provide gynecological care.

Marital or Parental Status § 86.40

The regulation bars any rule concerning a student's actual or potential parental, family, or marital status which makes distinctions based on sex.

A school may not discriminate against any student in its educational program, including any class or extracurricular activity, because of the student's pregnancy, childbirth, false pregnancy, miscarriage, or termination of pregnancy, unless the student requests voluntarily to participate in a different program or activity.

If a school does offer a voluntary, separate education program for pregnant students, the instructional program must be comparable to the regular instructional program.

A school may ask a pregnant student to have her physician certify her ability to stay in the regular education program only if it requires physician's certification for students with other physical or emotional conditions.

Recipients must treat disabilities related to pregnancy the same way as any other temporary disability in any medical or hospital benefit, service, plan or policy which they offer to students. Pregnancy must be treated as justification for a leave of absence for as long as the student's physician considers medically necessary. Following the leave, the student must be reinstated to her original status.

Athletics § 86.41

General coverage. The regulation says that no person may be subjected to discrimination based on sex in any scholastic, intercollegiate, club or intramural athletics offered by a recipient of federal educaiton aid.

Separate teams and contact sports. Separate teams for each sex are permissible in contact sports or where selection for teams is based on competitive skill. Contact sports include boxing, wrestling, rugby, ice hocky, football, basketball, and any other sport "the purpose or major activity of which involves bodily contact."

In *noncontact* sports, whenever a school has a team in a given sport for one sex only, and athletic opportunities for the other sex have been limited, members of the other sex must be allowed to try out for the team.

Equal opportunity. A school must provide equal athletic opportunity for both sexes. In determining whether athletic opportunities are equal, HEW will consider whether the selection of sports and levels of competition effectively accommodates the interests and abilities of members of both sexes. The Department will also consider (among other factors): facilities, equipment, supplies, game and practice schedules, travel and per diem allowances, coaching (including assignment and compensation of coaches), academic tutoring, housing, dining facilities, and publicity.

Equal expenditures are not required, but HEW "may consider the failure to provide necessary funds for teams for one sex in assessing equality of opportunity for members of each sex."

Adjustment period. Elementary schools must comply fully with the section covering athletics "as expeditiously as possible" but no more than one year from the effective date of the regulation. Secondary and post-secondary institutions have three years from the regulation's effective date to comply fully.

Textbooks § 86.42

The regulation does not require or abridge the use of particular textbooks or curriculum materials.

EMPLOYMENT § 86.51 - 86.61

General Provisions § 86.51 - 86.55

All employees in all institutions are covered, both full-time and part-time, except those in military schools, and those in religious schools to the extent compliance would be inconsistent with the controlling religious tenets

In general, the regulation prohibits discrimination based on sex in employment, recruitment, and hiring, whether full-time or part-time, under any education program or activity which receives or benefits from federal financial aid. It also bars an institution from entering into union, employment agency, or fringe benefit agreements which subject individuals to discrimination.

An institution may not limit, segregate, or classify applicants or employees in any way which could adversely affect any applicant's or employees' employment opportunities or status because of sex.

The regulation prohibits sex discrimination in all aspects of employment including employment criteria, advertising and recruitment, hiring and firing, promotion, tenure, pay, job assignments, training, leave, and fringe benefits.

Fringe benefits § 86.56

Fringe benefit plans must provide *either* for equal periodic benefits for male employees or equal contributions for both sexes. Retirement plans may not establish different retirement ages for employees of each sex.

Marital status and pregnancy § 86.57

An institution may not apply any employment policy concerning the potential marital, parental or family status of an employee or employment applicant which makes distinctions based on sex.

An institution may not discriminate in employment on the basis of pregnancy or related conditions. A temporary disability resulting from these conditions must be treated as any other temporary disability for all job-related purposes, including leave, seniority, reinstatement and fringe benefits. If the employer has no temporary disability policy, pregnancy and related conditions must be considered a justification for leave without pay and the employee reinstated to her original or comparable status when she returns from leave.

Effect of state and local laws § 86.58

The obligation to comply with this regulation is not precluded by any state or local laws.

ENFORCEMENT PROCEDURES §86.71*

Pending HEW's final issuance of a consolidated procedural regulation dealing with Title IX and other civil rights laws, the Department will follow the procedures of Title VI of the Civil Rights Act of 1964 to implement the Title IX regulation. Under these procedures HEW conducts compliance reviews — broad-based investigations of school districts or universities initiated by HEW. HEW will also investigate complaints submitted by individuals or groups.

The Title IX procedures require educational institutions to keep records demonstrating whether they are complying with the law's requirements. Records must be available to HEW upon request.

Discrimination complaints must be filed with HEW within 180 days of the date of discrimination. Aside from this requirement, no specific time limits are set on any other proceedings. If after investigation, HEW finds that discrimination exists, it can try to achieve voluntary compliance by the institution. Failing this, HEW may then begin administrative hearings which could lead to termination of federal financial assistance.

HEW can also refer the matter to the Department of Justice for possible federal prosecution or to state or local authorities for action under state or local laws. Under the provisions for administrative hearings, recipient institutions (but not the complainant) are granted the right to counsel and the right to appeal.

*The full text of these procedures appears at 45 CFR §§ 80.6 - 80.11 and 45 CFR Part 81.

☆

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James F. Jekel, M.D., M.P.H.
Associate Professor of Public Health
Yale Medical School
New Haven, Connecticut

The Past Decade of Special Programs for School-Age Parents: *Cause for Satisfaction or Just the Beginning?*

Reprinted by the National Alliance Concerned with School-Age Parents
From N[illegible]P NEWSLETTER, Vol. 3, No. 1, Spring 1975.

are provided during the crisis period (pregnancy, delivery, and immediately postpartum), school-age mothers are still at high risk for many kinds of problems. The most difficult progress would seem to lie ahead. There is the obvious need to reach all, rather than half, of the needy population, and it appears to be necessary to extend services for a much longer time.

There are a number of other problems at the level of the program and community (rather than the individual client). One is that special programs, particularly those that are isolated, may be reducing the *visibility* of the problem of school-age pregnancy to the community and thus lessening the pressure for the community to change in a creative way. The typical American solution to a problem is a "program." But this is also the great American escape: "We have created a program; therefore we have dealt creatively with it." Perhaps we should say this is the great American cover-up!

Program Models

One debate is whether the young mothers should be kept in their normal environments (especially regular school), or whether they need special protection and nurturance, like a hothouse plant. The younger mothers, and those who are less mature or who have special problems, probably need some of the "hothouse" environment. But if the school-age mother leaves the protected hothouse of the special program to go back to the jungle of the world, we may have just given her a breathing spell before going back into the wintry night of society's discontent, unless we help her deal creatively with the society to which she must return. She needs to learn to demand her rights, to find the help and services she needs, and to integrate the life and economics of a small but important family. In other words, we should be trying to create independence, not dependence, though too many of our health, educational, and social services foster the latter.

Even the special programs themselves are often in trouble. Too many have a natural history with a beginning, middle, and an end. Some programs have closed. Others probably will, but not because there is no need for them. Rather, it is often because many programs were started during the community action days of the latter 60's when everyone was creating programs out of spit and bailwire: a bit of Visiting Nurses Association or public health nursing here, a bit of special education there, a half of an obstetrician here, a quarter of a psychologist there, etc. These programs often had no strong institutional base, and hence no strong financial base. Therefore, just as when a child builds a toy house out of whatever materials are available, the results may be interesting but not very stable or well planned. Even beyond the problem of resources and planning, the community action programs, though strong on initiative and imagination, were often weak in fiscal know-how, with the result that fiscal tangles and disasters have occurred.

Communication Linkage

We must improve our knowledge base, which is far from adequate. There is already much helpful research but, unfortunately, it is not readily accessible because of the communication problems. The field must be served by a knowledge system in which the development and communication of knowledge are both supported, because neither is very useful without the other.

We must improve communication within the field. To date, two organizations have sought to do this nationally, with mixed success: the National Alliance Concerned with School-Age Parents and the Consortium on Early Childbearing and Childrearing. Yet there is no single, logical journal for communication, although the NACSAP Newsletter and SHARING have performed this function to some extent. State organizations such as the Wisconsin Alliance are, therefore, vital to communication. Communication, however, is expensive, and the Federal willingness to help financially appears to be weakening. So, for the foreseeable future, the efforts of individuals and organizations will continue to be vital.

We must also improve our data base about programs so that we know what is going on in the field. This implies a more adequate *national data system* with both input from the programs and regular feedback to the programs.

Primary Prevention

From Connecticut to California, I have heard cries for more "primary prevention." I assume that by this people mean we should find ways to keep girls from getting pregnant in the first place—at least while they are of school age. I have done my share of head nodding in assent to this philosophy. But recently I have tried to think a bit more carefully about this, and in so doing some uneasy questions kept appearing.

First, let me review my understanding of the term "primary prevention." The term was originated, or at least popularized, in medical circles by Dr. Hugh Leavell, who described three "levels" of prevention (Leavell's levels!). The term was applied to the prevention of disease. I ask: Is the medical ("disease based") model appropriate to early pregnancy (shades of the old era when pregnancy was an "illness")? Even if the medical model is useful (and I am dubious about that) one has to be able to distinguish between a *disease* on the one hand and a *symptom* or complication of a disease on the other.

Let me ask this—is the school-age pregnancy a disease to be prevented or is it a symptom? I have heard the view expressed that school-age pregnancies are attempts to ward off depression and intolerable loneliness. If one "prevents" this symptom (if it is), what will take its place? Drugs? Alcohol? Violence? Suicide? Are they to be preferred (if this is the choice—and it may not be)?

But let us assume that school-age pregnancy is a disease and not a symptom and return to Leavell's model. By "primary prevention" he means interrupting the pathological process to prevent the disease from appearing. There are two ways to approach this according to Leavell.

1. *Health Promotion.* By this he means using general means to improve nutrition, environment, housing, living standards, and education (i.e., improve the environment and the way of life, including social and psychological environment). If this is to be achieved, it is a tall order, and not something that is likely within the range of a "program" in the usual sense of the word. That is much more likely to be influenced by a society's "policies" (which guide the direction of the society) than by "programs" for those left in the ditch. I believe, however, that by keeping the problems ever before society, we have a good chance of gradually influencing attitudes and policies toward school-age parents at the local, state, and national levels.

2. *Specific Protection.* The second subheading under Primary Prevention is "specific protection"—i.e., a technically developed "bullet," an intervention with the capability of preventing a specific disease. The prototype in disease is the vaccine. Are there specific techniques we can use to prevent the first pregnancies? In a certain sense the answer is "yes." Contraceptives will prevent pregnancies, and abor-

tions will prevent live births. But in what context can these be offered? A "special" program for teenagers? Should they be pushed?

My thoughts at the present moment are that we would be making the best contribution to primary prevention by improving the accessibility and quality of basic community services and opportunities for all adolescents, male and female. This, of course, requires the removal of discrimination based on race, sex, or class in all phases of life, and a concerted effort to achieve a better redistribution of income.

It would also include efforts to make schooling more relevant and meaningful to adolescents. More relevant education would deal with basic aspects of life, such as family life; it would make vocational training and adult education accessible options to adolescents, and it would open up employment opportunities.

Primary prevention means realizing that school age pregnancies will continue to occur until adolescents are integrated meaningfully into the purpose and work of our society. Specific prevention efforts will be of limited success in the absence of health promotion, and such efforts might even produce more problems unless specific functional substitutes are found.

Last, it should be remembered that secondary prevention for the first pregnancy, if successful, can be primary prevention for the second pregnancy. As Dempsey has pointed out, the first pregnancy has identified the group at risk so that subsequent preventive efforts can be focused on the high risk group, and he has made a strong argument that this is the most efficient use of resources.

Plan of Action

Perhaps these thoughts can be summarized by listing some areas I believe we ought to emphasize as we look ahead.

First, we must make an impact on the community in which we live. Our job is not to remove the problem from sight, but rather, working with the girls themselves in this effort, to continually keep before the community the needs and problems of young mothers. That may mean bringing community leaders to the program and having them on boards of directors or serving in an advisory capacity. Programs for school age mothers cannot afford to be the rug under which the community sweeps its problem.

Second, we should think carefully before creating "hothouse" programs, those in which the young mothers can hide from the reality of school, home, medical care institutions, etc. To the extent possible, the programs should be in the community. We should help them use the community facilities, and learn to be competent in using them. These community facilities are going to be available to them when our special programs no longer are.

Third, we should consider extending the duration of assistance and counselling, even if it means some reduction in intensity of services around the time of pregnancy. One of the ways to do this is to spend less time giving them the services ourselves and more time helping them to use available community resources, as mentioned above. Another way is to bring the community into the act. In one community, the telephone company is one of the biggest long-term assets to the program. Not only is a telephone company executive an active board member, but the telephone company is an important employer of many graduates, and its existence provides hope for a good job and makes the education seem more relevant.

Fourth, we should strengthen the institutional base of the program. This means assuring that the school-age mother program is an integral part of the work and budget of one or more established community agencies, such as the school system, health department, hospital(s), social service agency, etc. The hand-to-mouth funding and makeshift programming of the community action agency must be changed into the security and strength of the basic agencies. This also is a part of making an impact on the community. The basic financial source, I am convinced, must be local, for that is the only way to keep the problem meaningfully before the community. When the community is committed to a program, the funding will be secure. Without exception, every program should have regular financial audits by certified accountants. If your program does not, I suggest you begin that immediately.

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Fifth, we must continue experimentation in program approaches and not let a standard program model become entrenched. But experimentation is not of value unless it is accompanied by evaluation, so that we know which experiments are worth extending elsewhere. A field without evaluation cannot advance.

Sixth, we should rethink the meaning of primary prevention of school-age pregnancies and be fairly certain that there are acceptable functional substitutes for pregnancy to young women in our society. This will probably not happen in the absence of improvement in the relevance and quality of life and education and better employment opportunities. We should also remember that special programs, although "secondary prevention" for the first pregnancy, can be "primary prevention" for the second.

In conclusion, we have come a long way, but there is an even longer way yet to go, and the most difficult times may yet lie ahead. But as I see the Wisconsin Alliance bigger and stronger than the National Alliance when it first began, I am optimistic about the affiliate system in general and in particular about your efforts to help strengthen family life in Wisconsin. The National Alliance is ready to help you in these commendable efforts.

(Dr. Jekel is a member of the Board of Directors of the National Alliance Concerned with School-Age Parents. This paper was presented at the Third Annual Conference on School-Age Parenthood sponsored by the Wisconsin Alliance Concerned with School-Age Parents in Milwaukee, October 11, 1974.)

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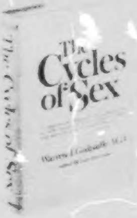

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PARENTING GUIDE:

Selected Resources and Materials 1965 - 1975

Developed by the
National Alliance Concerned with School-Age Parents (NACSAP)
through membership funds and contract funds
provided in part by the U.S. Office of Education

Lucy Eddinger, Editor
Janet Bell Forbush, Project Director

The National Alliance Concerned with School-Age Parents (NACSAP) is a multi-disciplinary, non-profit tax-exempt membership organization specializing in the provision of technical assistance to individuals and groups advocating improved services delivery to school-age parents and their infants. Membership dues are: Young Parent - $2/yr.; Individual - $20/yr.; Family - $30/yr.; Sustaining - $50; and Patron - $100. All membership dues and contributions are tax deductible. For membership information, write NACSAP, 7315 Wisconsin Avenue, #211-W, Washington, D.C. 20014. Telephone (301) 654-2335.

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The following persons and organizations have contributed significantly in the preparation of the Parenting Guide: Educational Resources Information Center (ERIC), National Institute of Education, Washington, D.C.; The Day Care and Child Development Council of America, Inc., Southwest Educational Development Laboratory, Early Childhood Division, Austin, Texas; Evelyn Riccio, graduate student, Syracuse University (NACSAP Research and Publications Division), Syracuse, New York; and Willola C. Tyson, NACSAP staff, Washington, D.C.

INTRODUCTION

Parenting Guide: Selected Resources and Materials - 1965-1975 is an initial effort on the part of the National Alliance Concerned with School-Age Parents (NACSAP) to bring together resources considered most helpful to those working with adolescent parents. An explosion of materials in this field has been brought about by the new and growing awareness on the part of the general public that parenting--as opposed to parenthood--is an art that calls for very special skills. Yet few of these materials are designed to meet the unique needs of young parents and human services professionals who are working in their behalf.

The recognition of the need for a parenting guide which could fill this gap evolved through technical assistance oriented experiences including site visits with program representatives, public speaking contacts, and correspondence. This project did not result from a needs assessment. Rather, it came about independently in response to numerous requests from service providers for relevant materials.

After recognizing this need in 1974, the Alliance obtained funding for the purpose of identifying and assessing parenting materials to be compiled as an aid to those working with young parents. Since few school-age parent programs have staff to assign to resource identification activities, it was felt that a guide, rather than a bibliography, would be more helpful in directing the user to resources which would be of immediate use.

Generally speaking, parenting materials are suited to a diverse audience. The titles in this guide, however, provide a selected sampling of the wide variety of available parenting aids. A number of titles which might be of equal importance have not been listed. This is, of course, the function of a guide. Given the range of sources as indicated by the over 325 titles in the Parenting Guide, the reader is encouraged to build upon this resource by contacting the associations and organizations which have produced materials listed in the guide.

It should be noted that the Audiovisual/Bibliography section is intended as an aid in locating producers and/or distributors of print and non-print materials. Some of the firms specializing in the production of visual materials have shown a special sensitivity regarding adolescent parents and their children. Nonetheless, there are only limited materials intended primarily for use with school-age parents. Concerned professionals could encourage the development of additional resources in this area by documenting a need. Moreover, a careful evaluation of the Parenting Guide might help to direct attention to other issues such as research priorities, program administration, and legislation. Depending upon the response to this publication, the Alliance is anticipating the development of a data collection and dissemination service which would deal with such topics.

The Alliance looks forward to working with you.

Janet Bell Forbush

Janet Bell Forbush
Executive Director

PARENTING SKILLS DEVELOPMENT

Note: Where an ERIC reference is cited, orders may be placed by writing to: ERIC Document Reproduction Service (EDRS), Computer Microfilm International Corporation, P.O. Box 190, Arlington, VA 22210.

- Baby Learning Through Baby Play, Gordon, Ira J., St. Martin's Press, Inc., 175 Fifth Ave., New York, N.Y. 10010, $3.[illegible]5, 1970, pp. 121.

Incorporates latest research in child development for encouraging intellectual growth and stimulation of infants from 3 months to two years through play and games. The author is director of the Institute for the Development of Human Resources, University of Florida (Gainesville). In an introductory word to parents he emphasizes that the games are not a curriculum that the baby is called on to pass: the games aren't tests. He advises parents to have fun when playing with their infants. The games are designed to help babies develop basic skills such as focusing the eyes, coordinating eye and hand movements, distinguishing differences among almost identical objects, etc. The infant should develop confidence to explore the world around him, learn that learning is enjoyable, and develop self-confidence and trust in others. The reading level may be slightly high for some school-age parents. This book would be useful as a program resource guide. It shows fathers as well as mothers interacting with babies and gives constructive suggestions to help fathers see that playing with their infant not only is fun but stimulates the child's development.

- Child Learning Through Child Play, Gordon, Ira J., Guinaugh, Barry, and Jester, R. Emile, St. Martin's Press, Inc., 175 Fifth Ave., New York, N.Y. 10010. $3.95, 1972, pp. 116.

Similar to the baby book, this book is designed to stimulate intellectual and emotional growth in 2-and-3-year olds. The ideas and suggestions were developed by using them in two kinds of settings: in the home with individual parents who received demonstrations from home visitors, and in small group settings with five children in a home situation in the care of two adults, neither of whom was a professional but had been specifically trained in the use of the games. From these experiences the authors found that 3-year-old children whose parents had used these activities and those suggested in the earlier book were advanced over other children in language ability and memory development. As with the baby book, the reading level may be slightly high for school-age parents but this book would make a good program resource to be used as a guide for play suggestions.

- Infant Play and Learning, Chase, Richard and Fisher, John, available free in limited quantity from Special Programs Div., Bureau of School Systems, U.S. Office of Education, 400 Maryland Ave., S.W., Washington, D.C. 20202.

This series of five resource manuals is designed to help parents and other caretakers make a better selection of play materials for infants and a better use of materials they select. Volume 1 covers the period from birth to three months. Volumes 2, 3, and 4 deal respectively with the three-to-six, six-to-nine, and nine-to-twelve months age periods. Volume 5 contains the bibliography and appendices for the entire series. Each of the first four volumes is divided into sections. These include behavior development, which reviews behaviors of infants that is relevant to an understanding of their play; play materials, which deals with choosing toys and other materials on the commercial market as well as offering suggestions for homemade toys; and play routines, which describes ways in which suggested materials might best be used and outlines other games parents and caretakers can use in playing with infants. The information contained in these volumes has been gathered through extensive review of the literature on infant behavior. In the course of this review, special emphasis was given to play behaviors, and the description of play routines that have proven successful with large numbers of infants. The bibliography offers a wide selection of books and audiovisual materials together with the names and addresses of manufacturers and dealers of infant educational play materials and sources of additional information on infant care and learning. This series may be helpful for young parents to use on their own or it could be duplicated and adapted for classroom use.

- Learning Materials Notebook, Hewett, Karen, Vermont Home Care Enrichment Center, 600 Dalton Drive, Fort Ethan Allen, Winooski, Vt. 05404, 1974, pp. 50.

Contains suggestions for constructing inexpensive learning materials by using scrap surplus from local stores and industries. The staff of the Vermont Home Care Enrichment Center, a day care center for 60 children, ages 2 through 5, and a training program for caretakers, set up a modest workshop to provide space and tools to make learning materials. The publication is the result of this experience. It provides a list of tools and paints purchased, along with [illegible] costs, recommended by center staff as a "sound investment." It contains suggestions on how to make fire engines, dump trucks, loaders, etc., out of simple materials and gives ideas for making puzzles, boxes, blocks, peg boards, musical instruments, play house furniture. The booklet also contains a supplement with ideas for building and designing an outdoor recreation area. This is an excellent resource for program administrators looking for ideas.

- Treating the Mother-Child Dyad in the Nursery School, Harper, Randolph T., and others, Louisiana State University Medical Center, New Orleans, La. EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 18.

A preliminary report is provided on a therapeutic nursery school program at Louisiana State University Medical Center in New Orleans. The program emphasizes the mother-child unit rather than the child as a single individual.

- Infants and Mothers, Brazelton, T. Berry, Dell Publishing Co., Inc., 1 Dag Hammarskjold Plaza, New York, N.Y. 10017, $4.95, 1969, pp. 296.

Dr. Brazelton uses a unique and highly readable format to trace the growth and development of three babies through the first year of life. By choosing a very active, a moderately active, and a quiet baby, he illustrates the marked contrasts that exist among normal infants. Dr. Brazelton states that the [illegible] intended to help each young mother chart her own course as she begins the task of motherhood and to see each baby as an individual. "With this recognition of the wide swings in normal infant behavior," Dr. Brazelton notes, "young parents may be shored up in their day to day understanding of their own babies. With an understanding of how and why they take each step in development, their role as parents may be clearer." Interspersed are Dr. Brazelton's professional comments which give the reader the necessary background information about the physical, social and emotional, and intellectual growth and development that occur in the first year of life. This book is an excellent choice for young parents, since it is supportive of the individual mother finding her own way with her own baby.

- Toddlers and Parents, Brazelton, T. Berry, Delacorte Press, 750 Third Ave., New York, N. Y. 10017, $10.00, 1974, pp. 250.

Subtitled " A Declaration of Independence," this book stresses the importance of the child's developing a sense of autonomy during the years from one to three. Dr. Brazelton states, "...the more autonomy a child can achieve at this age, the better able he or she will be to move on to the next developmental task." But he notes that this is a very demanding job for both parent and child and advises parents that they should not feel that they are entirely responsible for their child's future personality. "By implying that all responsibility is on the parents, we are saying that unless parents find the one right way, any mistake they make will ruin the child." This creates too heavy a burden of parental anxiety, Dr. Brazelton believes. He emphasizes that "each child is born with particular strengths and marked individuality" which allows him to absorb a great many mistakes on his parents' part. "When in doubt," Dr. Brazelton advises parents, "follow the child!" Using an extremely effective technique of placing an actual toddler and parents in an actual situation, Dr. Brazelton follows each scene with an explanation of the whys and wherefores of the child's actions, and what he is looking for from his parents. His experience as a pediatrician, his good sense and his good will come through as he describes many situations that can be extremely frightening, especially to young parents. He takes up real problems of real families, not just those of an idealized middle-class couple. He shows great understanding for the loneliness single parents often experience and gives examples of a single mother, a working single mother, and a single father. He discusses the problems of child-spacing, in-laws, sibling rivalry, the withdrawn child, the demanding child, and the hyperactive child. Although this book does not specifically address the special needs of school-age parents, it does take up many of the problems they will encounter when their child reaches the toddler stage. Its warm and empathetic approach make it an appropriate book for young parents.

Parenting Curriculum, Cooper, Grace C., Consortium on Early Childbearing and Childrearing, Child Welfare League of America, Inc., Publications Service, 67 Irving Place, New York, N.Y. 10003, $12.50, 1974, six workbooks.

This series of six workbooks is especially designed for young mothers. Written in a simple, direct style, these books answer many of the questions that may be troubling to a young woman who is about to give birth for the first time. Designed for individualized study, they are written in a way which enables the young mother to learn at her own pace. Questions and answers at the end of each section emphasize the points made and the young parent can check out her knowledge with the answers listed at the back of the book. All of the workbooks are illustrated with attractive multi-ethnic line drawings. Book One, "Getting to Know Your Baby and Yourself," describes the prenatal period. It recognizes and deals empathetically with many of the questions that may be unique to a young woman pregnant for the first time and not quite sure of what she's getting into. It gives a step-by-step description, with illustrations, of the development of the fertilized egg in the mother's uterus. This workbook also discusses the importance of a well-balanced diet, visits to the doctor or clinic, personal grooming, etc. A detailed description of the actual birth process prepares the young mother for her experience in the hospital. Book Two, "Your New Human," describes the period from birth to one month. Emphasizing that each baby is different, it describes some of the characteristics of newborns that may seem strange to a young mother. Further discussions include aspects of child care that are especially relevant for the young mother--breast feeding vs. bottle feeding, care by relatives, qualities to look for in a caregiver, how to fit the school schedule in with new parenting responsibilities. It also reassures the young mother about her own feelings and the need to continue her own activities. Book Three, "Learning About the World," describes the one-month to three months period, the time when the baby is beginning to coo and smile and recognize the people around him. It emphasizes the importance of holding and cuddling, and the necessity to work out adequate child care arrangements. This book also discusses the mother's relationship with the baby's father and the need to get sound advice on contraception. Book Four, "Your Baby Grows," takes up the period from three to six months, describing the changes that will begin as the baby grows and develops. It offers ideas on how to make play a learning experience. This workbook deals with the special personal problems young parents encounter--the need for self-esteem, how to deal with money problems, and how to improve personal appearance through grooming and exercise. Book Five, "Learning More Each Day," discusses the six-to-nine-month period, telling young mothers that the creeping, crawling, sitting habits of their increasingly active baby are a good and natural part of child development. It tells how to understand and deal with baby's fear of strangers, how he may be affected by too many and different caregivers. Advice is given on the relationship with the baby's father. A section deals with job-hunting and job counseling, giving sample application blanks and advice on how to handle job interviews. Book Six, "The End of the First Year," the nine-to-twelve-month period, completes this series. This workbook reviews information on infant growth and development and looks ahead to the future. A special section for single mothers who may be thinking of getting married poses some realistic questions and is especially helpful for a young woman who may be having difficulty sorting out her true feelings and beliefs about this important step in her life.

- Guide to Teaching Early Child Development: A Comprehensive Curriculum, Cooper, Grace C., Consortium on Early Childbearing and Childrearing, Child Welfare League of America, Inc., Publications Service, 67 Irving Place, New York, N.Y. 10003, $15.00, 1974, pp. 344.

The teacher's guide is designed to be used in conjunction with the parenting curriculum for adolescent mothers. It includes classroom aids, student work-sheets and tests. It is thoroughly annotated, with extensive bibliographies. Its appendices include a description of the various schools of thought in child development, and a vocabulary section on black and Chicano English. The child development section covers gradual and sequential growth from birth to age three in four main areas: physical, social,emotional, and cognitive. The information is adaptable to a variety of teaching situations; the teacher is encouraged to be aware of individual, economic, ethnic, social or age differences in dealing with the material. The style is non-technical and extremely readable.

- Infant Curriculum, Tronick, Edward and Greenfield, Patricia Marks, Media Projects, Inc., 201 E. 16th St., New York, N.Y. 10003, $10.95, 1973, pp. 179.

Based on child care curriculum developed at the Bromley-Heath Center in the Jamaica Plains section of Boston, this book emphasizes the interrelationship of thinking and social growth--"When babies do not have love or do not have good conditions for play, they do not grow in a healthy fashion." Even though this book is geared toward group care, it can easily be adapted as a guide for teaching infant care to school-age parents. Its looseleaf binder, multi-ethnic photos and easy-to-read type make it a good resource. It would also be extremely helpful for program administrators who want some guidance on establishing a curriculum for an infant care center. School-age parents who send their children to day care centers could also use it as a guide for quality center care. A special section on social interaction gives valuable tips on ways to encourage infant development.

- If You Only Knew What Your Baby Is Thinking, Ligon, Ernest; Barber, Lucie; and Williams, Herman, D'Antoni and Associates, Inc., P.O. Box 92999, Los Angeles, Calif. 90009, $3.95, 1973, pp. 122.

Written in the first person, this book features pictures and text designed to help parents learn their baby's special language. The first section is devoted to growth and development. It tells how a baby looks and feels at birth, during the first month and on through his first birthday. It gives a baby's view of learning about body coordination and manipulation, language, use of mouth and eyes, and getting to know the people around him. A section on "Friends My Age Tell Me," describes the reactions of other babies who may be developing in different ways. This section emphasizes child development information. The second section is in the form of a journal. It includes a place for the baby's picture and family tree, and pages where a day-to-day record can be kept of his development and accomplishments. This book should be popular with young parents because of its delightful first-hand way of telling the baby's story. It is illustrated with multi-ethnic photographs.

- Getting Ready to Be A Parent, The Pre-School Task Force, District #40, Moline Public Schools, 1619 Eleventh Avenue, Moline, Ill. 61265, $5.50, 1974.

This booklet and accompanying recipe box of activity cards was developed by the Pre-School Task Force of the Moline public schools to help parents develop the learning ability of their pre-school children. It is an excellent resource for school-age parents. The booklet stresses the importance of reading and working with the child and offers step-by-step descriptions of the various stages of child development. Ideal for use for school-age parents, the activity cards come in a handy desk-top box of file cards. They are easy to read and color coded by age and stage of child development. Designed to be pulled out and carried around, they are a handy, ever-ready learning tool for young parents. The yellow cards for ages 0-1 give examples for using objects in the home such as toys, with imaginative ideas for converting kitchen utensils for baby's playthings. These cards instruct parents to encourage baby's creeping and crawling to develop curiosity and interest in surroundings. Pink cards for 1-2 years, suggest how to hide a toy to test the child's development in "figuring it out," how to use magazines as reading materials, and how to convert the bathtub for finger painting. White cards for 2-3 years tell how to work with pictures, puzzles, beads to help the child develop coordination and learn to count to 10. Green cards for 3-4 years describe how word games can be used to develop language facility, how to make puppets, ideas for making water colors, mobiles, body games, nature walks. Blue cards for 4-5 years tell how to teach the alphabet, word associations, similarities and differences, make musical instruments, learn by playing store and making Jello and Kool Aid.

- I Can Do It, Coley, Elise D. (editor), Project Enlightenment, 601 Devereux, Raleigh, N.C. 27605, $2.50, 1973, pp. 48.

Designed to increase a child's sensory awareness and sense of the world about him, this book contains excellent suggestions on how to get children excited about learning and discovering how things look, feel, smell, and sound. Ideal for showing school-age parents how to use home and neighborhood as natural teaching environments for their young children. Should increase interaction between parent and child and help to develop mutual pride in the attainment of important developmental skills. A little box beside each exercise allows the child to check off a task as he learns to do it. Written at an easy reading level, its large multi-ethnic illustrations are attractive and amusing. The print is large and easy to understand.

- The Sensible Book, A Celebration Of Your Five Senses, Polland, Barbara Kay, Available from Celestial Arts, 231 Adrian Road, Millbrae, Calif., 94030, $3.95, 1974, pp. 55.

Illustrated by full-page photographs, this book focuses on each of the child's five senses and shows how the senses are interrelated. Activities are suggested to increase the child's sensory awareness.

- Only Human, Teenage Pregnancy and Parenthood, Howard, Marion, The Seabury Press, 815 Second Ave., New York, N.Y. 10018, $6.95. 1975, pp. 190.

This book tells the story of three very different couples who experience the challenge of school-age pregnancy and parenthood. Throughout their stories, the author answers questions that young parents have about their situation--everything from coping with the emotional and social impact of teenage pregnancy to solving problems related to meeting their own needs along with those of their newborn child. The book offers basic information about health care, changing educational policies and practices, and counseling resources and day care. This book would be helpful to school-age parents since it tells the story from their point of view and speaks directly to them. It [illegible] also be useful reading for administrators, health professionals, and counselors working with young parents.

- Parenting: A Guide for Young People, Gordon, Sol and Wollin, Mina McD., Wm. H. Sadlier, Inc., 11 Park Place, New York, N. Y. 10007, $2.84 (Teacher's Guide - $4.80), 1975, pp. 184.

This book notes that parenting has only recently emerged as an established course in the schools. It is written to be used as a text for such a course, or to be read and discussed by individuals before and after becoming parents. It is especially directed toward young parents. It poses some realistic questions they should ask before mar[illegible] or child rearing: Do we both want children? Will the father help in ca[illegible] for the child? Will the mother work outside the home? Where will we li[illegible] about money? A chapter on human reproduction gives a straight-f[illegible]lanation of the process. It makes the important point that "sexual [illegible]t may be said to be the right of adult human beings. But being wanted, [illegible]ned for, and cared for properly is the right of every child." A discussion of contraceptive techniques emphasizes that "none of these methods is considered 100 percent effective." Abortion is recognized as a highly controversial subject about which "there are sharply varying opinions." The prenatal period is discussed with notes on physiological changes, growth and development before birth, including the effects of viral infections, venereal disease, and the use of drugs. Also considered are the effects of emotional problems and poverty. The importance of adequate nutrition and good prenatal care is stressed. The authors give a thorough description of the birth process and the needs and appearance of the newly born infant. Other chapters discuss maternal care after childbirth, physical, emotional, and mental development of the infant during the first two years of life, children and sex education, the preschool child, the family's mental health, and ways to be a more creative parent. Men and women are presented throughout as fully equal partners in marriage and parenthood. It is recognized that many young people today reject the traditional family structure in which the husband is the breadwinner and primary decision-maker and the wife is responsible for all household chores, including childrearing. It is also recognized that many children are being raised by single parents. The book is recommended for young parents. Its straight-forward approach and multi-ethnic photographs should be especially appealing. Note that there is a Teacher's Guide available to use with the text.

- Good Food for My Baby, Pizzo, Peggy Daly, and Pizzo, Phillip, Day Care and Child Development Council of America, Inc., 1012 - 14th St., N.W., Washington, D.C. 20005, $2.00, 1975, pp. 66.

An excellent resource for school-age parents, this book is easy to flip through fast but gets the message across. It treats such subjects as how a pregnant mother's diet can affect her unborn child, breast vs. bottle feeding, formula and cow's milk, soft and solid foods, and how to handle a child's cravings for candy and junk foods. Attractive line drawings illustrate the easy-to-read text. Emphasizes the do-it-yourself approach to food preparation. An appendix listing the research on which the text is based may also serve as a guide for additional source material on nutrition information.

- You Are Your Baby's First Teachers, Segal, Marilyn M., Nova University, Fort Lauderdale, Fla., EDRS price, MF-$0.65, HC-$9.87, 1973, pp. 214.

This easy-to-read manual for parents describes what a baby learns in the first year of life and suggests specific things parents or caregivers can do to encourage a baby to use his body, senses, and mind to communicate. A checklist for parents to record their baby's activities is also included.

- Suzy Prudden's Creative Fitness for Baby and Child, Prudden, Suzy, and Sussman, Jeffrey, William Morrow and Co., Inc., 105 Madison Ave., New York, N.Y. 10016, $6.95, 1972, pp. 160.

The objective of this book is to help parents become active and work with their children to develop physical fitness. Suzy Prudden, daughter of physical fitness expert Bonnie Prudden, tells how the physical fitness exercises that were part of her childhood helped her develop a zest for life, and how she started her son's exercise regimen at infancy. She notes that elaborate and expensive equipment is unnecessary when the home is filled with objects like chairs, tables, pillows, etc., that can be converted to exercise equipment. Gives ideas for using boxes, ropes, and broomsticks for baby's exercise routine. The second section contains specific exercises to develop the child's physical fitness capacity in accordance with his age. An accompanying chart gives age and number of minutes a day for each exercise. Large photographs of the author with babies and children illustrate this section and its looseleaf binding makes it easy for propping as the routines are followed. This book is excellent for school-age parents who want to develop physical fitness along with their infants.

- Guiding Your Child To A More Creative Life, Maynard, Fredelle, Doubleday and Co., Inc., 277 Park Ave., New York, N.Y. 10017, $7.95, 1973, pp. 369.

This book attempts to teach parents to stimulate creativity in their children. Chapter contents focus on: what creativity is, and whether it can be cultivated, ways that parents can foster creativity in general, play toys and materials, arts and crafts activities, music for children, dance, activities for the whole family, children's books.

- Baby and Other Teachers, Aaronson, May, and Rosenfeld, Jean, Day Care and Child Development Council of America, Inc., 1012 - 14th St., N.W., Washington, D.C. 20005, $2.25, 1974, pp. 16.

Simple, easy to read handbook on baby's initial development. It describes how babies reach out to the world around them and tell both mother and father about their needs; how interaction between mother and baby, father and baby, and other caretakers such as grandparents, sisters, brothers, relatives, becomes a two-way learning process. Attractive line drawings add appeal to the presentation. This is an excellent resource for school-age parents. A section on research notes gives brief summaries of the latest findings on mother-infant interaction, parent-child relationships, etc. Should be helpful to teachers and program administrators.

- Your Child's Intellect, Bell, T. H., Olympus Publishing Co., 955 E. Ninth St., S., Salt Lake City, Utah 84102, $7.95, 1972, pp. 191.

Written by the U. S. Commissioner of Education, this book is designed to be a parent's manual for home-based early childhood education. He notes the strong influence of the home on the child's learning ability and emphasizes the importance of the first five years of life in the child's intellectual development. The home should provide exposure to books, pictures, colors, shapes; the parent should be a positive teacher, building on the child's success experiences and reinforcing self-confidence. The author describes the characteristics of each learning stage, from the first 10 months of life to four and five years, and gives excellent suggestions on how to encourage and develop latent abilities at each age. Each chapter provides a section on practical application, giving ideas and suggestions for playing, talking, teaching, using common household items as teaching tools. A list of selected references and additional reading completes the book. It may be used at home by school-age parents. Directions are simple and easy to follow and large, multi-ethnic photographs provide the illustrations.

- Preparing for Parenthood, Salk, Lee, David McKay Co., Inc., 750 Third Ave., New York, N.Y. 10017, $7.95, 1974, pp. 206.

Takes a warm, reassuring approach, offers sensible advice on how to deal with the self-doubts and ambivalence normal to parenthood. Places a healthy emphasis on male responsibility in parenthood, recommends that fathers learn as much about prenatal care and child rearing as mothers and that they should be present at the delivery. Dr. Salk advocates that "human survival training" replace female-centered home economics courses. In these courses boys as well as girls would learn the essentials of child rearing, home maintenance, food preparation. He recommends that fathers should participate actively by attending prepared childbirth sessions, working with the mother on exercises. His advice is down-to-earth and parent-centered, with helpful hints on handling interfering relatives and unsolicited advice from meddlesome onlookers. Dr. Salk calls on parents to follow their own natural instincts. Good chapters on satisfying the baby's early emotional needs, how and when to discipline, and changing trends in family life. However, Dr. Salk assumes a level of autonomy that many school-age parents do not have. They may not be free to select the most compassionate doctor or the most advanced hospital.

- P.E.T., Parent Effectiveness Training, Gordon, Thomas, Peter H. Wyden Inc., 750 Third Ave., New York, N.Y. 10017, $7.95, 1972, pp. 338.

Sets forth a "no-lose" method of parental discipline through the effective management of conflict. Emphasizes that parents should be honest with themselves and their children and recognize their true feelings. "Parents are people, not gods." They don't have to be always accepting of their children. Helps parents to recognize and deal with their own feelings of anger, ambivalence and inconsistency toward their children." Rather than moralizing, advising, ordering, etc., P.E.T. advocates the technique of "active listening" in order to get children to communicate their real feelings. Instead of sending "you" messages that make the child feel put down, P.E.T. calls on parents to send "I" messages describing to their children how they honestly feel. This book is not recommended for school-age parents unless they are taking a P.E.T. course. It is recommended for teachers and counselors as a valuable tool in increasing communication. The section on communication with and from infants may be useful in instructing adolescents in how to become more effective parents.

- Your Child's Self Esteem, Briggs, Dorothy C., Doubleday & Co., Inc., 501 Franklin Ave., Garden City, N.Y. 11530, $6.95, 1970, pp. 341.

The author views all growth and behavior against the backdrop of the child's search for identity and self-respect and advocates ways for parents to build a sense of self-worth in their children. Stresses that every child needs "focused attention--genuine encounter--to feel loved." Many of the recommended techniques are borrowed from Thomas Gordon's P.E.T. Parent Effectiveness Training method. The reader may want to go to the original source rather than getting the information second hand. However, the emphasis on building self-esteem makes this book worthwhile in itself. There are good chapters on sex education and the development of motivation, intelligence, and creativity. The author discusses the volatile nature of I.Q. scores and the factors that influence them. This book may be helpful to teachers and administrators as background in working with adolescents.

- Between Parent and Child, Ginott, Haim G., Macmillan Co., 866 Third Ave., New York, N.Y. 10022, $6.95, 1965, pp. 223.

Concentrates on the school-age child. Contains constructive advice on handling anger in children and parents--express it but never attack character or personality; how to deal with lying and stealing--avoid sermons; teaching responsibility and independence--give choices. The author stresses that permissiveness brings confidence and increasing capacity to express thoughts and feelings but over-permissiveness brings anxiety and increasing demands for privileges that cannot be granted. On sex education, he notes, it is the attitude conveyed rather than the words used that is important. On sex roles, he takes a traditional approach, placing emphasis on differences rather than similarities.

- How to Parent, Dodson, Fitzhugh, Signet Books, The New American Library, Inc., 1301 Avenue of the Americas, New York, N.Y. 10019, $1.95, 1970, pp.444.

Dr. Dodson makes the important point that parenting is a learning process. While other professions require degrees and years of preparation, the parent is thrust into his demanding role with little preparation and expected to become an expert from the very beginning. The book addresses itself mainly to mothers, emphasizing the first five years of life and their various stages of development. The author notes that a child can develop his intelligence to the maximum if given sufficient intellectual stimulation in the first five years. He suggests simple homemade toys and objects that can help a baby become aware of its environment. He makes the point that "'spoiling' is not a concept that can be applied to babies," that a baby is not capable of behaving like anything but a baby and should have the right to act like one, that it is harmful to neglect the infant's very real needs for fear of spoiling him. Dr. Dodson recognizes that fathers should take an active role in feeding, holding, and playing with the baby. He recognizes that this may require persuasiveness on the mother's part, because "many American fathers seem to be afraid of their babies." He recommends a very open, matter-of-fact approach to sex education starting at the preschool level. "Our ideal should be to treat the whole subject of sex as neutrally and as matter-of-factly as we would any other subject." Several books are recommended for reading aloud to preschoolers. The book also includes sensible advice on how to select a nursery school, how to deal with children's reactions to violence on TV and in society, how to teach a child to think, how to stimulate language development. A series of appendices give helpful leads on toys and play equipment for children of different ages and at different stages, free and inexpensive toys that parents can make or buy for little money, a parents guide to children's books and records. A "survival kit" for parents lists basic books to aid in raising and educating children.

- How to Father, Dodson, Fitzhugh, Nash Publishing Co., 9255 Sunset Blvd., Los Angeles, Calif. 90069, $8.95, 1974, pp. 535.

This book follows a hypothetical child in development from infancy to adolescence and describes how to guide the child at each stage of psychological growth. It emphasizes the importance of the male role-model, advising fathers to take time to bottle feed, cuddle, play with, and diaper their infants, thus helping to build a strong emotional bond. The author strongly differentiates between the meaning of discipline and punishment. He explains that a father's problem with discipline often stems from his unawareness that he is expecting his child to function at an impossible level of perfection at each age. He stresses that fathers need to see both their male and female children through all the difficult stages of development during preschool and adolescent years. The father should not be someone who disappears in the morning and returns in the evening. He discusses the father's important role in developing his child's healthy attitude toward sexuality and his vital contribution to his child's intellectual stimulation. The author's experience as a counselor gives him valuable insight into the current drug scene and how it affects adolescents. His view is realistic and he offers helpful advice to parents who must deal with this problem. Overall, the book is addressed to the middle-class father. This is especially evident in the chapter on divorce and "blended" families. It fails to say anything about the single father who may not be living with his family but still wants to take a strong interest in his children. An extensive appendix serves as an excellent guide to resource materials, including toys fathers can make or buy and a wide variety of books and records he can borrow from the library or purchase.

- Raising Children in a Difficult Time, Spock, Benjamin, W. W. Norton, Co., Inc., 500 Fifth Ave., New York, N.Y. 10036, $7.95, 1974, pp. 268

The famous baby doctor wonders why he ever got the reputation among some people of advocating excessive permissiveness. He admits he is as irritated as anyone by children who are rude, unhelpful, and demanding, and advocates a middle ground between overpermissiveness and sternness. Advises parents to be firm about their leadership thus avoiding extended tug-of-war with children who don't know what to expect and want guidance. He notes the confusion of the day, loss of authority by traditional religion, and the emphasis on science and technology. In child rearing over the last 50 years the emphasis has been on psycnological factors that tend to overlook moral aspects. This has resulted in self-doubt among parents and a tendency to doubt or dilute their own standards, making it difficult for them to pass them on to their children. On sex education he believes it is more important for parents to show mutual love and be comfortable with one another than to give elaborate factual explanations. He believes it is important to integrate spiritual and romantic aspects in sex education, otherwise sex appears to be too mechanistic. A chapter on racial discrimination contains helpful suggestions for both black and white parents. Other useful chapters include those on the influence of drugs on today's youth culture, the pros and cons of day care, how to handle interfering grandparents, and the importance of the father's role. He admits that he has shown "male discrimination" in past judgments concerning women's part in childrearing and careers. He now believes "Girls and boys should be brought up to think of child rearing as exciting and creative work" and that girls should be encouraged to have careers outside the home if they want them.

- Power to the Parents!, Bird, Joseph and Bird, Lois, Doubleday & Co., Inc., 501 Franklin Ave., Garden City, N.Y. 11530, $5.95, 1972, pp. 215.

The authors, family counselors and parents of nine, take a no-nonsense attitude toward childrearing. They stress parental acceptance of responsibility. "As the mother and father, you are in the best position to become the 'child expert' with your own children," they advise. While over-permissive or authoritarian approaches to parenting are equally damaging in their view, they do advocate setting limits, firmness in discipline, and the establishment of a strong family structure within which children can feel secure. They favor traditional sex roles for both parents—fathers should be fathers and mothers should be mothers, with little interchange of tasks and responsibilities. They take a realistic view of drug use and sexual experimentation among teenagers. Although this book is not specifically written for school-age parents, they may be interested in reading the sections on teenage sexuality and drug use.

- Black Child Care, Comer, James P. and Poussaint, Alvin F., Simon and Schuster, 63[illegible] Fifth Ave., New York, N.Y. 10020, $9.95, 1975, pp [illegible]98.

The authors, both black psychiatrists, have written this book in response to a special need. They state: "In spite of the fact that there are a large number of child care books on the market, most of them are geared toward the middle-income white family. Few discuss race-related issues of child rearing. Few discuss low-income children and families." The book tells black parents how to help their children grow up with a positive racial identity. The authors advise: "Being black in a country full of anti-black feeling and action presents real problems. These problems need not be discussed with your child until he is able to understand and handle such information. But, whenever you do discuss the matter, it is important to strike a balance between too much and too little attention to the issue of race, or you can defeat your own purpose." They suggest that race is a subject that should be discussed with children in a natural way. Infants should be given black dolls as well as white ones to help make black, brown, and white normal like the real world. "If this is done early, when the question of color comes up later, it will not be loaded with anxious feelings if it has not been previously ignored or overdramatized." Besides sensible advice on handling racial questions, the book offers parents sound advice on other child-rearing issues such as discipline, raising a fatherless child, sex education, the question of permissiveness, dealing with adoption, aggression and the preschooler, and dealing with profanity. The book is written in simple, direct language in a question and answer format. It takes up such parental questions as: I must work, will I harm my baby by leaving him with a caretaker? I often feel depressed, will this harm my baby? How can I stimulate my infant's motor or movement control? What can I do to help my baby think and learn? What about learning through play? Is it harmful to spank a child? Isn't it true that some child care experts feel that black parents tend to be too strict? The book covers all facets of child rearing from infancy to adolescence. It is especially recommended for young black parents. Besides the special insight it will give them on child rearing, the authors' forthright treatment of questions on girl-boy relations, contraception, venereal disease, mental health, drugs and drug abuse, make it especially relevant.

- Parent Power and Public Schools: A Guide for Parent Advocacy, Available from the National Urban League, 55 E. 52nd St., New York, N.Y. 10022, Price not quoted, EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 17.

The National Urban League has prepared this Handbook as a guide for parents who want to improve systems and change schools. The following topics are discussed: visiting schools, including discussion of why schools should be visited, how to prepare for a visit, and how to follow up a visit; school discipline and your child, discussing the ways in which your child can be disciplined, your rights at a suspension hearing, physical punishment, and other topics; the curriculum, what your child learns in school, discussing promotion and failure, special classes, "slow" classes, and multi-ethnic textbooks; how to evaluate teachers, specifying 11 questions to be asked in making such an evaluation, along with questions concerning the children in a teacher's class which might also be helpful in making the evaluation; school records and your right to see them; and, Title I programs, discussing the purpose of Title I and the best uses of Title I funds. A list of sources of legal assistance for parents is provided.

- The Black Child, A Parents' Guide, Harrison-Ross, Phyllis and Wyden, Barbara, Peter Wyden, Inc., 750 Third Ave., New York, N.Y. 10017, $7.95, 1973, pp. 360.

Although much of this book is directed to the black parent, the authors explain that it is for white parents and teachers as well. It is written from both a black and white perspective. Dr. Harrison-Ross is a black pediatrician and child psychiatrist, Ms. Wyden is a white editor and mother. They compare the difficulty many black parents have in discussing race with their children with the difficulty many parents have in talking about sex with their children. "In both cases parents tend to stiffen up when they talk to their children about these subjects." Dr. Harrison-Ross speaks from her rich clinical and personal experiences in confronting aspects of both black and white worlds that parents must learn to deal with. Her advice is warm and sensible. Subjects covered include recognizing and curbing the silent messages of dislike transmitted from parent to child, how unspoken messages of white parents transmit their fears of blacks to white children, how a parent can reconcile his concepts of what it means to be black with his teenager's concept of blackness, how to deal with well-intentioned whites who are blind to their true feelings about blacks. Chapter 2 gives black parents a set of guidelines on "facing the facts of black." They include learning to deal with being black, how to tell your children about race, what to do if you find it difficult to talk to your child about being black. This section stresses the value of games about blacks, black history, integrated dolls, and integrated reading materials. This book could be a real mind-opener for young parents. It is also recommended for white administrators and program people working in the black community.

- Don't Push Your Preschooler, Ames, Louise Bates and Chase, Joan Ames, Harper & Row, 10 E. 53rd St., New York, N.Y. 10022, $6.95, 1974, pp. 212.

The authors believe parents should relax and enjoy their preschoolers. They advise parents not to spoil things for themselves and their children by expecting too much too soon, or by trying to push their children into behaviors for which they may not be ready. They do not advocate that parents sit back and do nothing. They advise parents to learn as much as they can about child behavior and then learn to trust their child's natural pattern of development. There is a helpful section on common childhood problems and what to do about them. An appendix lists a wide variety of books on parenting.

- Living and Learning with Children: A Handbook of Activities for Children from Three to Six, Jorde, Paula, Available from Paula Jorde, 217-B 10th St., S.E., Washington, D.C. 20003, $2.00 (discount on quantity orders), 1973, pp. 65.

This handbook of activities is designed to help parents, or preschool teachers, present interesting learning games to children ages 3-6 years. Activities are grouped into the following categories: sensory awareness, getting ready to read and write, learning math concepts, discovery through science, creating through art and music, and what's cooking? Photographs and illustrations are included.

- Somewhere a Child is Crying, Fontana, Vincent J., Macmillan Co., Inc., 866 Third Ave., New York, N.Y. 10022, $6.95, 1973, pp. 268.

The author suggests that there is no single answer to the problem of child abuse, the problem is multi-dimensional. We cannot treat the children and ignore the parents, even if the parents offend our moral sensibilities. We must consider families and surrounding circumstances which contribute to the illness. The poor are not the only multi-problem families, Dr. Fontana points out. Parents who maltreat their children do not always look the part. The abusing parent is not one type of person: "His motives cannot be simply traced to poverty, cruelty, to rage, to a mistaken concept of discipline, to our child-rearing philosophy, or to the violence in our society. They are rooted in sociological, psychological, and even biological characteristics of the offender." The book also tells how Dr. Fontana, aroused by the cases he saw in his pediatric practice, was spurred to action as chairman of New York's Mayor's Task Force on Child Abuse and Neglect. The task force was instrumental in bringing about a revision of the reporting system to include neglect as well as abuse. The figures of such cases increased alarmingly after this practice was initiated but they more accurately reflected the true picture. Dr. Fontana decries individual and national apathy about the problem. He notes that many people fear becoming involved in reporting such cases but urges them to do so. He offers guidelines on what to look for if child abuse or neglect is suspected and gives advice on how to get through to a suspected abusive parent. He describes the work of the Pediatric Service at Colorado General Hospital in Denver where lay therapists act as parent figures visiting troubled homes and stand-in grandparents take on the care of hospitalized abused and neglected children. The work of Parents Anonymous started in California, is also described as a very effective method of reaching parents. Dr. Fontana is an advocate of the growing movement for children's rights and recommends concerted action on the part of the federal government and private and public agencies as well as individuals. This book is recommended for all those who would be child advocates. It is also recommended for those working with young parents as an insight into the potential problems of this group.

- Plain Talk About Child Abuse, Stoenner, Herb, American Humane Association, Children's Division, P.O. Box 1266, Denver, Colo. 80201, $0.35, 1973, pp. 24.

This pamphlet reprints six articles from a Denver Post series on child abuse and neglect. They expose the myths and stereotypes about parents who abuse their children, interpret the nature and dimensions of the problems, and offer suggestions for treatment of causes and effects.

- Parent Power: Primary Activities for the Home, Carson, Joan C., Available from Project Print, Building 1, Room 215, Washington Technical Institute, 4100 Connecticut Ave., Washington, D.C. 20008, no charge. EDRS price, MF-$0.65, HC-$6.58, 1973, pp. 161.

This illustrated manual was written with the expectation of increasing parent involvement in children's early learning development. Concrete examples of things to do are offered in the areas of: health care, language development, perceptual-motor development, social development, and quantitative concept development.

- Parenting, Markum, Patricia Maloney, The Association for Childhood Education International, 3615 Wisconsin Ave., N.W., Washington, D.C. 20016, 1973, $2.50, pp. 72.

This series of articles stresses that the concept of parenting should be respected by both men and women, as a task in which the entire community has a stake. Differentiates between parenting and parenthood, advocates shared parenting, and shared jobs in order to make this possible. Notes the importance of grandparents and their special role as storytellers and nurturers. Describes how death of a parent, or divorce, affects both parent and child. Explores question of television as a surrogate parent. Describes projects such as Education for Parenthood and Future Homemakers of America which help teenagers relate to children by working with them. Parents as Resources (PAR), started by three Chicago mothers to encourage parents to be their children's first teachers, is also described. This booklet may be helpful to teachers and administrators as background. It is not recommended for school-age parents. The format is difficult to read with small, closely spaced type.

- For the Young Mother-To-Be, Cowart, Eileen and Liston, Walter, Mead Johnson Laboratories, Evansville, Indiana, free, 1974, pp. 19.

This booklet is specifically written for the young girl who is pregnant for the first time and who may be married or unmarried. Its tone is supportive, emphasizing that the "problem can be solved." Establishes a nonjudgmental attitude. Makes a strong effort to dispell superstition and old wives tales. Advises continuing education--"you don't need to be isolated and lonely--but realistically notes that "some of those people who were friendly with you before you became pregnant will avoid you when they learn of your condition." Lists problems that can be encountered in pregnancy but reassures, "During the next nine months you will be your healthiest . . . it is impossible not to be thrilled and excited by the miracle of life." Contains a spread of advertising for Mead Johnson products.

- How Babies Learn to Talk, Pizzo, Peggy Daly, Day Care and Child Development Council of America, Inc., 1012 - 14th St., N.W., Washington, D.C. 20005, $2.00, 1974, pp. 35.

Subtly incorporates sound developmental principles in its easy-to-read, easy-to-understand text illustrated by amusing line drawings. This is a good resource for encouraging school-age parents and family members to help baby develop ability to communicate. A helpful section on related research gives brief summaries of the latest books and articles on the subject.

- The Growth and Development of Mothers, McBride, Angela Barron, Harper & Row, 10 E. 53rd St., New York, N.Y., 10022, $1.25, 1973, pp. 158.

The author pleads for a rethinking of the motherhood mystique, noting that mothers are often moody, disillusioned, put-upon, and have trouble living up to the ideal of motherhood expected of them by society. Such negative emotions are normal in all mothers, the author declares and questions about their reasons for having children, their attitudes toward husbands, relatives, friends, are all parts of the picture. This is not a how-to-do it book with answers on how to cope with these negative emotions. The author writes with wit and insight, pointing out that the growth and development of parents and the growth and development of children are interrelated.

- Mothers' Training Program: The Group Process, Badger, Earladeen D., EDRS price, MF-$0.65, HC-$3.29, 1969, pp. 25.

This study hypothesized that mothers from a low socio-economic area could be trained by teachers to implement an infant tutorial program using their 1- and 2-year-old children as subjects. Results showed that the infants made intellectual gains on the Stanford-Binet and ITPA. Mothers showed much interest in the 2-year program, attended regularly, and became involved in paraprofessional teaching and Head Start. Teacher observations during home visits indicated that mothers' attitudes changed positively in respect to teaching their infants. The study concluded that parents must be included in programs for the disadvantaged and that the time variable is crucial to attitude change since it was the second year before mothers developed the self-confidence to use at home what they had learned in class.

- For the Love of Money, Knight, James A., J.B. Lippincott and Co., East Washington Square, Philadelphia, Pa. 19105, $5.95, 1968, pp. 184.

The author notes that this book was stimulated by his psychiatric interest in the meaning of man's behavior toward money. He notes that money in our culture has a powerful effect on our inner feelings of anxiety--if we have it, it adds to our security and self esteem, if we don't have it, we may experience social contempt and a feeling of worthlessness. Parents' attitude toward money strongly influences a child's view. If they display anxiety about money, the child will pick up the same attitude. The author advises that "parents should not use money as a reward for good behavior, good grades, or personal services. Avoiding the use of money as a reward also avoids crossing that sensitive line which divides a reward from a bribe." This is not a how-to-book in the sense that it offers parents specific suggestions on how to guide their children in the sensible use of money. Rather, it is a fascinating study of the value, use, and misuse of money and its consequent psychological implications. It may be too heavy for young parents but interesting to those who would like to know more about how money affects character.

- A Curriculum to Assist Parents to Become Advocates for Improved Title I, ESEA Programs and Other Related Programs, Peterson, Terrance, American Friends Service Committee, Columbia, South Carolina Community Relations Program, EDRS price, MF-$0.65, HC-$3.29, 197[illegible], pp. 22.

The purpose of this curriculum is to increase the skills and self confidence of 20 to 30 parents who [illegible] in "economically disadvantaged" school districts to the extent that they will become more active in seeking improvements in the 1965 Elementary Secondary Education Act, Title I, and other compensatory education programs in their school district. The emphasis of the curriculum is to provide a setting where parents can assimilate the necessary background information about Title I and related programs.

- Successful Parenthood, Becker, Wesley C. and Becker, Janis, Follett Publishing Co., 1010 W. Washington Blvd., Chicago, Ill. 60607. $5.95. 1974, pp. 199.

  This book advocates a behavioristic approach to achieving parental discipline. It recommends a technique of rewards and punishment by giving children treats for good behavior and discipline for bad behavior. The technique is designed to help parents learn to use consequences to teach children what they want them to learn. This technique seems too coldly calculating; it calls for using signs, graphs, and charts to document behavior. Even though many of the recommended disciplines appear positive, the overall effect is too manipulative; a sensitive child could easily recognize this. Not recommended for school-age parents.

- Parents Primer: A Guide to Education, Towarnicky, Carol, Center for the Study of Student Citizenship, Rights, and Responsibilities, Dayton, Ohio, EDRS price, MF-$0.65, HC-$3.29, pp. 32.

  This handbook for parents assumes that there is nothing wrong with their child but that there is something wrong with the school system. It assumes that parents know that their children need to survive and that the one-sided, professional approach to learning is not working as well as school authorities say that it is. The handbook states what some of the rights of children and parents are, and how to go about obtaining them. It lists the names of people who are responsible for the child's education and the proper channels to follow.

- In the Beginning: A Parent Guide of Activities and Experiences for Infants from Birth to Six Months, Book 1, Rabinowitz, Melba, Available from Curriculum Specialist, Parent Child Developmental Center, 3300 Freret St., New Orleans, La. 70115, $5, EDRS price, MF-$0.65, HC-$6.58, 1973, pp. 161.

  This workbook, directed toward the non-reader, was designed for the New Orleans Parent Child Developmental Center's Infant Program. It offers parents day-by-day suggestions for stimulating infants from birth to six months. Experiences related to the child's visual, auditory, muscular, and language development, as well as hints on routine and reinforcement methods, are explained in simple form and accompanied by illustrations and checklists. Emphasis is placed on the parent's communication with the baby and the baby's reactions to his environment.

- Helping Your Child to Read, Foust, Betty Jean, North Carolina State Library, Raleigh, N.C., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 21.

  This booklet provides suggestions for parents in helping their children to learn how to read. The first section provides 34 activities and suggestions for parents to use with preschool children, such as reciting nursery rhymes, reading aloud, respecting the child's mood, and playing and listening games. The second section offers 25 suggestions and activities for the parent to use after his child begins school.

- Parents and Reading, Perspectives in Reading No. 14, Smith, Carl B., Comp. Available from International Reading Association, Six Tyre Ave., Newark, Del., 19711, $3.50 non-member, $3 member, 1971, pp. 117.

Chapters in this book describe how the home and the general environment contribute language and concepts and thereby condition a child to react favorably or unfavorably toward school and reading. The causes of reading difficulties are discussed to show that physical and psychological as well as social and instructional interferences may be involved.

- The Effects of a Preschool Language Program on Two-Year-Old Children and Their Mothers, Final Report, Mann, Marlis, Arizona State University, Tempe, Ariz., EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 67.

A study was made to determine whether a structured language program for 2-year-old educationally disadvantaged children and a complementary structured language program for their mothers would significantly affect the language behavior of mothers and children. It was concluded that the program (a) produced a significant change in the syntax style of mothers and the pattern of verbal interaction between mothers and children, and (b) effectively changed the syntax style of the children.

- A Parents Guide to School Readiness, Cedoline, Anthony J., Available from Academic Therapy Publications, 1539 Fourth St., San Rafael, Calif. 94901, $2., 1972, pp. 65.

The information in this booklet is intended to help a parent prepare and determine his child's readiness for school. Tests are included which enable a parent to measure progress. Scores, their interpretation, and suggested recommendations are also provided to help the parent better understand how his child compares to the "average" child beginning school.

- Renewing Home-School Linkage: A Program of Division IV, Far West Laboratory for Educational Research and Development, Berkeley, Calif., EDRS price, MF-$0.75, HC-$16.20, plus postage, 1972, pp.332.

The purpose of this program is to reduce the dissimilarity between home and school for low-income children by renewing home-school linkage. The program is designed to achieve this goal by training, installing, and using parents as linkage agents. Their functions include serving as sources of information about their children, as informants, as participant-observers, as participant-developers/evaluators of educational materials, and engaging in dialogue with teachers of their children.

- Involving Parents in the Behavior Modification Program of Their Children in Home and School. A Research Project, Advani, Kan, Frontenac County Board of Education, Kingston, Ontario, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 38.

Six children enrolled in a "Kindergarten for Children with Special Needs" were the subject of a 3-month study of behavioral techniques applied to children's problem behavior through the training of parents. The study group worked with the children in their homes and attempted to bring about change in their behavior through parental involvement. The improvement shown by the children suggested the advantage and need of early intervention in families of deviant children.

- Adlerian Counseling for Parent Education, Piercy, Fred P., Paper presented at the American Personnel and Guidance Association, Atlanta, Ga., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 10.

The thesis of this paper is that the helping professions must aid parents in understanding their children and provide them with methods to improve family relationships. Adlerian counseling is presented as one potentially useful method of reaching this goal. The basic principles and democratic philosophy of Adlerian counseling are outlined, and emphasis is placed on the educational aspects of this approach.

- How To Start Your Own Preschool Play Group, Watts, Harriet, Universe Books, 381 Park Ave. South, New York, N.Y. 10016, HC-$5, paper-$2.95, 1973, pp. 153.

An involved mother gives suggestions and helpful hints about setting up and managing a neighborhood playgroup. In simple terms, the book tells what toys and equipment to buy, and how to organize physical education, music, art, reading, nature studies, cooking, special events, and games.

- Do's and Don'ts, Teaching Your Child, Televised Parent Training Program, available from Central Midwestern Regional Educational Lab., Inc., 10646 St. Charles Rock Rd., St. Ann, Mo. 63047, no price quoted, 1972, pp. 97.

A supplementary booklet to the televised parent training program, "Teaching Your Child." This particular booklet was intended to provide guidance on child rearing by presenting specific concepts in an easy-to-read format. Two other booklets are also available from the same source, Televised Segment: Teaching Your Child, Televised Parent Training Program, and Teaching Your Child, Televised Parent Training Program.

- *Implementation of the Toy Lending Library in the State of Utah, Summary Report, 1971-72*, Utah State Board of Education, Salt Lake City, Utah State Department of Public Instruction, Salt Lake City, EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 81.

The Toy Library program trains parents to use a limited number of educational toys to teach specific skills, fundamental concepts, and problem solving behaviors to their own three- and four-year-old children. The program is designed to fill the educational needs of the many three- and four-year-olds who are not participants in some other organized educational program.

- *A Guide to Securing and Installing the Parent/Child Toy-Lending Library*, Rosenau, Fred; Tuck, Betty, Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, $0.60, stock no. 1780-0993, 1972, pp. 147.

This handbook makes it possible for a group of parents in almost any community to begin using the Parent/Child Toy-Lending Library program. This program is an eight-week course (about one hour per week) for parents of preschool children during which they learn to use a variety of toys and games at home to stimulate growth of the child's intellectual skills and to enhance his self-concept. The "nuts and bolts" of training are discussed as to the course, the class, the role of parents in the program, the toys for each class, the printed handbooks, the audiovisual training materials, how to establish a Parent/Child Toy-Lending Library program, and course-leader/librarian training. A chapter on finding funds gives details on a variety of funding sources.

- *The Socialization of Intellectual Skills in Papago Children: The Effects of a Parent Training Program*, Henderson, Ronald W., and Swanson, Rosemary, Arizona Center for Educational Research and Development, Arizona University, Tucson, Ariz., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 56.

Thirty mothers of first-grade Papago Indian children were trained by selected Papago paraprofessionals to teach their children to ask casual questions. The procedures used by the mother in the home environment included role playing, modeling, and giving the child verbal praise. Between formal training sessions with the paraprofessionals, mothers practiced a previously learned skill with their children. Study findings of the children's question-asking response data indicate that the mothers, after having training in socialization skills, significantly increased their children's performance on the question-asking tasks over performance attributable to direct modeling instruction by the experimenter. A later factor analysis suggests that well planned instruction, targeted on specific skills, may be effective regardless of a child's general level of past achievement in academic subjects.

- Partners In Language: A Guide For Parents (Companeros En El Idioma: Guida Para Los Padres), Available from American Speech and Hearing Association, 9030 Old Georgetown Road, Washington, D.C. 20014, no price quoted, EDRS price, MF-$0.75, HC-$7.80, plus postage, 1973, pp. 166. (Text is in English and Spanish).

  This is a bilingual book about language development of the young child. It is written for parents, with the objective of providing them with skills to help their children learn to talk. Emphasis is on maintaining communication between parent and child from infancy in a non-pressured, accepting, and positive environment.

- Description Of A Program To Train Parents To Influence The Development Of Question-Asking Skills In Their Young Children, Garcia, Angela B., and others, Arizona Center for Early Childhood Education, Arizona University, Tucson, Ariz., EDRS price, MF-$0.75, HC-$1.85, plus postage, 1972, pp. 46.

  Mexican-American mothers of first grade children participated in an educational program in which they learned to teach their children question-asking behaviors. This particular target behavior was selected because previous research and observation indicated that Mexican-American children asked few, if any questions. It was hypothesized that enhancing the question-asking behavior would possibly help the children succeed in school.

- A Modest Proposal, an Expression of Children's Needs by People in Rural Alaska with Recommendations for Positive Change, Alaska State Department of Education, Juneau, State Operated Schools, EDRS price, MF-$0.75, HC-$18.60, plus postage, 1973, pp.376.

  The specific concerns and recommendations that the people of rural Alaska made about their educational system are documented in this report. The major need areas include bicultural curriculums and bilingual instruction, the relationship between the community and the school, local control and local planning, and the availability of secondary education in local communities. In many cases the ideas of the parents are presented in their own words.

- A Pictorial Guide to Common Childhood Illnesses, Vaughn, Gerald, Sir Joseph Causton and Sons, Ltd., London, $8.95, 1970, pp. 176.

  This book tells how to look at a child for signs of illness, what to look for, what it means, what to do, how to examine a child, what to listen for. It is not a book of baby care nor a do-it-yourself doctor book. The information is designed to help know when to call a doctor. Large full-color photographs make this book particularly useful. It also includes a nonpictorial guide to common illnesses and a section on what to do in emergencies. It could serve as a valuable resource in a program library.

- Home Stimulation of Handicapped Children: Professional Guide, Donohue, Michael J., and others, Marshall-Poweshiek Joint County School System, Marshalltown, Iowa, Dept. of Special Education, EDRS price, MF-$0.65, HC-$6.58, 1973, pp. 146.

The professional guide to a parent education course on the mental stimulation of handicapped young children is organized by topics. Included for most of the sessions is an overview in terms of goals, objectives, and activities; a discussion guide; scripts of audiovisual presentations; and any necessary forms. The program includes parent/child home toy sessions, and a preschool playroom as well as parent classes.

- Enhancement of Recreation Services for Disabled Children, Part IV, Recreation for Disabled Children: Guidelines for Parents and Friends, Fiscal Report, Berryman, Doris L., and others, New York University, School of Education, EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 23.

This booklet offers suggestions for the provision of recreation services to handicapped children. Listed are types of community agencies likely to have recreation programs for disabled children. Guidelines for parents who wish to help start a recreation program if none exist in the community include positive action steps parents can take. Described are some recreation programs for handicapped children which are being conducted in various states to illustrate the kinds of recreation services which can be made available.

- Parent Training in Precise Behavior Management with Mentally Retarded Children, Final Report, Rickert, Devoe C.; Morrey, James G., Utah State University, Logan, Utah, EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 80.

The purpose of the study was to explore the effect on parents and children of training parents in the use of the precision teaching approach to behavior modification in an effort to increase their ability to manage retarded children at home. During a 10-week training period, parents learned the modification procedure evolved by Ogden Lindsley and were successful in managing behavior.

- If You Have A Handicapped Child, Bureau of Education for the Handicapped, Washington, D.C., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 27.

Written for parents who have recently learned that their child is handicapped, the pamphlet introduces parents to the general prevalence of handicaps among children, the concept of special education, the importance of early diagnosis, the existence of many facilities and programs involved in the diagnosis and education of handicapped children. Included are addresses of private or voluntary organizations to which one can write for brochures concerning a particular handicap.

- A Home Training Program for Young Mentally Ill Children, Doernberg, Nanette, and others, League School for Seriously Disturbed Children, Brooklyn, N.Y., EDRS price, MF-$0.65, HC-$3.29, 1969, pp. 57.

This home training program consisted of individual instruction with a parent, and parent and professional group meetings on a regular basis. The researchers felt the program of direct approach to parents offered an effective, realistic approach to the very young emotionally disturbed child to whom traditional therapies were often unavailable. It was concluded that the approach improved the mental health of the family by strengthening the parents' self concept and enabling them to use themselves more productively as family members.

- Residential Programming for Mentally Retarded Persons, Vol. 1, Prevailing Attitudes and Practices in the Field of Mental Retardation, National Association for Retarded Children, South Central Regional Office, Arlington, Tex., EDRS price MF-$0.65, HC-$3.29, 1972, pp. 21.

The first of a series on residential programming for the mentally retarded, this booklet reviews for parents the prevailing definitions, attitudes, and practices in the field. Mental retardation is defined as subaverage functioning which originates during the developmental period and is associated with impairment in adaptive behavior. It is asserted that, traditionally, the rights of the retarded in the community and in institutions have been abused, abridged, or denied. Related booklets are: Developmental Programming in the Residential Facility, and The Process of Change.

- Counseling Parents of Mentally Retarded Children and Youth, Fils, David H.; Attwell, Arthur A., Los Angeles County Superintendant of Schools, Los Angeles, Calif., EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 42

Written in question and answer form, the guide for parents of mentally handicapped children provides information in the areas of health and medical concerns, assessment of the child's mental ability, parent-child-family relationships, education, psychological and psychiatric adjustments of both child and parent, improving communication, and recreation.

- Handling the Young Cerebral Palsied Child at Home, Finnie, Nancie R., E. P. Dutton and Co., Inc., 201 Park Ave. South, New York, N.Y., 1970, pp. 2[illegible]4.

Written primarily for parents of cerebral palsied children, the text discusses and illustrates methods for handling the child in daily activities. Drawings and explanations include the development of movement, carrying, bathing, toilet training, dressing, feeding, transporting devices, sleeping, play, and linking play with everyday activities.

- Guide for Parents of Pre-School Visually Handicapped Children, Bryan, Dorothy, Illinois State Office of the Superintendent of Public Instruction, Springfield, Ill., EDRS price, MF-$0.65, HC-$3.2[illegible], 197[illegible], pp. 65.

  Written as a guide for parents of preschool visually handicapped children, the booklet provides background information and some basic facts thought to be necessary to help the child grow into a happy, well-rounded, and successful adult.

- Blind Pre-School, Taylor, Billie, Comp., Available from Colorado School for Deaf and the Blind, Colorado Springs, Colo. 80301, $1.50, 1972, pp. 61.

  Articles pertinent to aiding the pre-school blind child are collected in this publication. Topics include discussion of attitudes and emotional reactions important for parents and teachers of blind children, and optimal development in regard to early motor behavior and emotional and social needs. Common areas of parental concern such as discipline and expectations are reviewed.

- The Preschool Child Who Is Blind, Office of Child Development, Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (Folder No. 39-1953), $0.20, 1968, pp. 27.

  The pamphlet contains general information and guidelines for parents of a preschool blind child. It is explained that a blind child needs what every child needs: love, good health, attention. Parents are urged to play with their blind child, give him opportunities to explore and grow, and to provide many and varied experiences for him.

- Answers, Little, James A., Ed., Available from New Mexico School for the Deaf, 1060 Cerrillos Road, Sante Fe, N.M. 87501, no price quoted, 1970, pp. 199.

  Prepared for parents of deaf children, the text is a compilation of papers and research prepared by both the deaf and hearing concerned with the deaf child. Articles by parents recounting personal experiences are featured.

- A Handbook for Parents of Deaf-Blind Children, Esche, Jeanne; Griffin, Carol,. Michigan School for the Blind, Lansing, Mich., EDRS price, MF-$0.65, HC-$3.29, 1969, pp. 29.

  The handbook for parents of deaf-blind children describes practical techniques of child care for such activities as sitting, standing, walking, sleeping, washing, eating, dressing, toilet training, disciplining, and playing. It is noted that deaf-blind children are rarely totally deaf and totally blind and, consequently, that it is important to provide the child with speech, language, visual, and auditory experiences.

● Your Down's Syndrome Child...You Can Help Him Develop From Infancy To Adulthood, Pitt, David, EDRS price, MF-$0.75, HC-$1.85, plus postage, 1974, pp. 35.

Intended for parents of children with Down's Syndrome, the booklet describes causes and probable developmental patterns of the Down's child. It is stressed that parents need professional counseling to aid in adjustment to and rearing of a Down's infant. Guidelines for selecting an institution and reasons for later placement (such as behavior problems) are provided.

● Instruction Pamphlet for Parents of Oppositional Children, Ora, John P., and others, George Peabody College for Teachers, Nashville, Tenn., Tennessee State Department of Mental Health, Nashville, Tenn., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 49.

The pamphlet contains explanations and instructions for parents of oppositional preschool children (negative, destructive, or uncooperative children) who are enrolled in a Regional Intervention Project (RIP) behavior modification program. Explained in basic terms are the behavior theories related to why a child becomes oppositional and how to change his behavior through the technique of differential reinforcement. Parents are taught to attend only to desirable behavior (positive reinforcement) and to ignore undesirable behavior (withdrawal of positive reinforcement). Special instructions are given for handling dangerous or very destructive behavior which cannot be totally ignored.

MAGAZINES, ARTICLES, AND RESEARCH PAPERS

● *Parents' Magazine*, 80 New Bridge Road, Bergenfield, N.J. 07621, published monthly, $6.95 a year.

One of the most long-lived publications in the field of parenting, this magazine keeps up with new trends while also covering subjects traditionally of interest to parents. Articles are geared toward the middle-class parent. However, a regular feature, New Mothers Want to Know by Dr. Morris A. Wessel, Associate Clinical Professor of Pediatrics at Yale School of Medicine, should be helpful to young parents. Another regular feature, the Family Movie Guide rates the latest movies as to their quality and suitability for children.

● "Parent Education for the Parental Role in Children's Vocational Choices," Shoffner, Sarah M.; Klemer, Richard H., *Family Coordinator*; 22; 4; 419-426, Oct 73.

This paper describes how parents affect a child's vocational choice and what parents can do to help children improve their vocational prospects, the opportunities and responsibilities of parents in the socialization processes which lead to the children's vocational choices, and what parent educators can do to help parents be more effective with their children's vocational growth through group meetings and individual counseling for youth and parents, and through published material.

● "Getting Infants Off on the Right Foot," Michalak, Barbara, *Day Care and Early Education*, 1; 5; 6-14 May-July 74.

The Riverside Center in New York offers a persuasive argument that group infant care is an important step for sound child development and parental involvement.

● "Return of Mom," Stein, Sara; Smith, Carter, *Saturday Review*: Education; 1; 3; 36-40, Mar 10, 73.

Early learning authorities increasingly agree that parents are a child's most important teachers; the author lists parent education programs and a bibliography of teaching tools for mothers.

- "Parents Pitch In To Build Montessori Open School," Modern Schools; 8-10, Feb 74.

  The parents of the school children at the First Montessori School in Atlanta, Ga., not only raised money for the new school facility, but actually helped construct it.

- "Rochester's Demonstration Home Program: A Comprehensive Parent-Infant Project," Castle, Diane L.; Warchol, Barbara, Peabody Journal of Education; 51; 3; 186-91, Apr 74.

  This program is designed for parents of children from birth to age 3 who are suspected of being hearing impaired; it focuses on teaching parents how to accelerate the children's listening skills and language development through the use of everyday household activities.

- "Parent Discussion Groups," Price, Eleanor A., Elementary School Guidance and Counseling; 6; 2; 92-97, Dec 71.

  A mothers' discussion group was organized by school personnel to allow mothers to talk about their children who were having difficulty adjusting to kindergarten. The mothers benefited from the experience by developing confidence in their ability to handle children as well as gaining new ways of dealing with problem situations.

- "Exploring Childhood: A Theoretical Foundation," Kagan, Jerome, Children Today; 2; 2; Mar-Apr 73.

  Author gives several theories on child development in hopes of getting the students in courses on "Exploring Childhood" to be open and creative in their interactions with children.

- "Parental Responsibility in the Teaching of Reading," Weiser, Margaret G., Young Children; 29; 4; 225-230, May 74.

  Discusses the role of parents in helping the child learn to enjoy reading.

- "The Pediatrician, Part Four." Klein, Stanley D., Exceptional Parent; 3; 4; 28-33, Sep/Oct 73.

  Intended for parents, the article describes the pediatrician's role in the long-term care of the child, offers guidelines for the relationship between parents and doctors, and recommends a regular health supervision program.

- "Involving Parents in a Children's Clinic,"Langellotto, Eugene, Children; 18: 6; 202-207, Nov-Dec 71.

  Activities of low-income parents of children served by a comprehensive pediatric clinic illustrate how inclusion of clients in the structure of health projects encourages them to speak and act for themselves.

- "Helping Handicapped Infants and Their Families: The Delayed Development Project," Jew, Wing, Children Today; 3; 3; 7-10, May-Jun 74.

  Describes a project which serves parents and their handicapped children, from birth to age 3. The project includes home-based as well as classroom instruction.

- "Who Owns the Child?," Van Stolk, Mary, Childhood Education; 50; 5; 259-265, Mar 74.

  Discusses causes and identification of abused children. Stresses the importance of appropriate parent models and parent education to prevent the abused child from becoming an abusive parent.

- "Parent Education - An Integral Part of Adult Education," Hall, Janet, Adult Education (London) 46; 6; 387-90, Mar 74.

  The parent role combines direct teaching and environment creation; parent education, a specialized branch of adult education, can be seen not as a mere directive process, but as a powerful catalyst towards a general self-education which becomes integral with permanent education, as a training for a continuing process of adaptation.

- "The Black Child," Ebony, Special Issue; 29; 10; Aug 74.

  In keeping with this magazine's concern for the modern black family, this special issue concentrates on the black child and gives black parents pointers on how to broaden their child's horizons, give them greater educational and social advantages, and keep them healthy in mind and body. Articles include: Teaching Your Child to Read, Introducing Your Child to Sex, The Danger of Intelligence Tests, Rearing the Foster Child, and Building a Strong Self-Image.

- "PTA: Pathetically Trivial Alliance or Potential Teaching Assistants, " Popp, Leonard A., Journal of Research and Development in Education; 7; 1; 72-7, F 73.

  Article discusses the role of parents in the education of their children and how to increase parent involvement in forming educational policy.

- "Assisted Reading and Parent Involvement," Hoskisson, Kenneth, and others, Reading Teacher; 27; 7; 710-14, Apr 74.

  Reports how parents helped two youngsters overcome reading difficulties. Also presents some tentative but studied observations about parents helping their children learn to read or to read better.

- "Play and Family Development," Strom, Robert, Elementary School Journal; 74; 6; 359-368, Mar 74.

  Describes an experimental parent education program designed to enhance the role of mother as educator and primary influence on young children. Adult-child conversation is encouraged through play skills, such as the 'toy talk' game used in the program.

- "A Toy Can Be More Than a Plaything," Herron, Matt, American Education; 8; 10; 21-4, Dec 72.

  Parents in an educational toy-lending program learn all about some unusual toys and how to use them while playing with their children.

- "The Toy Library: Parents and Children Learning With Toys," Nimnicht, Glen P.; Brown, Edna; Young Children; 26; 2; 110-6, Dec 72.

  On the assumption that parents can provide significant educational experiences for their preschool children, a Parent/Child course has been initiated in conjunction with the Toy Library at the Far West Laboratory for Educational Research and Development.

- "The Meaningfulness of Play for Children and Parents: An Effective Counseling Strategy," Ohlson, E. LaMonte, Journal of Family Counseling; 2; 1; 53-54, Spr 74.

  Active parent involvement in play therapy can add greatly to a child's development. As participants, parents can learn to empathize more readily with their children, thereby enabling them to grow and learn with them.

- "Can My Mummy Come Too?" Grey, Eleanor, Times Educational Supplement, London; 3063; 21 Feb 8, 74.

  Article considers the merits of playgroups versus nursery schools, the needs of preschool children, and the role of parents in educating their children.

RESEARCH AND PROGRAM AIDS

Note: Where an ERIC reference is cited, orders may be placed by writing to: ERIC Document Reproduction Service (EDRS), Computer Microfilm International Corporation, P.O. Box 190, Arlington, VA 22210.

- Cognitive and Mental Development in the First Five Years of Life, Lichtenberg, Philip, and Norton, Dolores, National Institute of Mental Health, 5600 Fishers Lane, Rockville, Md. 20852, 1970 pp. 111.

Evaluates and sifts the massive amount of information available in recent research studies in the area of cognitive and mental development during the first five years of life and considers the implications for future research and service programs. Among the important findings: parents are viewed as the major educational and therapeutic agents in early childhood care and usually need help in carrying out their responsibilities; parents of disadvantaged children and of severely disturbed children need assistance themselves; the preferred ratio of adults to children in early education programs is one adult to four to seven children; long-term programs, not short-term programs, are effective; good institutional care need not hamper normal growth and development in young children. This is a valuable handbook for program administrators and researchers.

- Infant Caregiving, Honig, Alice S., and Lally, J. Ronald, Media Projects, 201 E. 16th St., New York, N.Y. 10003, $10.95, 1972, pp. 224.

This book is primarily a manual for training caregivers in infant day care centers. But by substituting the word parent for caregiver, it can be used to teach school-age parents the basic elements of sound child development. It contains ideas for role-playing, suggestions on how and when to use audio-visuals, how to obtain free materials on nutrition, eating and sleeping habits of infants, etc., how to use toys and regular household objects as child development tools. It makes the important point that premature "helpful" interference on the part of the caregiver can discourage infants just as much as lack of support. Contains suggestions on how to encourage language development. An excellent section on Piagetian theory clearly explains various stages of infant sensorimotor development.

- How Children Grow, Clinical Research Advances in Human Growth and Development, General Clinical Research Centers Branch Division of Research Resources, National Institutes of Health, Bethesda, Md., 20014, $2.00, 1972, pp. 56.

This booklet offers a clearly written description of the physiology of growth from infancy to adolescence. It describes the importance of hormones and other elements of body chemistry that enhance or retard growth. Sections on low birth-weight babies, the childhood years and adolescence are particularly enlightening. An excellent resource book for health teachers and counselors.

- A Home Learning Center Approach to Early Stimulation, Gordon, Ira J., and Guinagh, Barry J., Institute for Development of Human Resources, Florida University, Gainesville, Fla., EDRS price, MF-$0.65, HC-$3.29, 1969, pp. 22.

The overall aim of this project is to continue the investigation of the effectiveness and practicability of a home-centered technique for cognitive, language, and personality development of mother and child to help break the poverty cycle. Discussed in this report are the research plan of the project, methods of procedure, treatment plan, development of materials, home center, and parent education.

- A Home Learning Approach to Early Stimulation, Gordon, Ira J., Institute for Development of Human Resources, Florida University, Gainesville, Fla., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 66.

Approximately 2[illegible]8 mothers and their children (aged 3 months to 3 years) participated in a home visit program using paraprofessionals as home visitors on a once-a-week basis in the first two years of life, combined with a small-group setting for four hours a week for children 2 to 3 years old. Findings indicate that such an approach can lead to (1) improved cognitive performance of the children as a function of time in the program and (2) positive attitudes and behaviors of mothers toward their children.

- The Family Development Research Program: A Program for Prenatal, Infant and Early Childhood Enrichment, Progress Report, Lally, J. Ronald, Syracuse University College for Human Development, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 37.

This progress report on the Family Development Research Program for 108 low-income families, conducted at Syracuse University Children's Center, provides information on a longitudinal comparison instituted when the program children reached 36 months of age. The families of the children were matched to control families on a number of variables.

- Instructional Strategies in Infant Stimulation, Gordon, Ira J., and others, Institute for Development of Human Resources, Florida University, Gainesville, Fla., EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 33.

  This document is the first year report on a project which examines the effectiveness of (1) teaching the mother versus teaching the infant, and (2) using a professional versus using a paraprofessional as the intervening agent. Also being studied is the relationship between the sex of the infant and the way he is taught and the effectiveness of systematic observation of teaching behavior on the behavior of the intervenor.

- Infant Care: Abstracts of the Literature, Williams, Tannis M., Child Welfare League of America, Inc., Publications Service, 67 Irving Place, New York, N.Y. 10003, $8.25, 1972, pp. 218.

  Over 200 abstracts provide a survey of research conducted in the areas of infant development; infant-adult interaction; childrearing patterns; infant education, intervention, and day care; and related theoretical and methodological issues. Materials are abstracted in sufficient detail to provide an overview of the areas covered.

- Infant Care: Abstracts of the Literature - Supplement 1974, Williams, Tannis M., Child Welfare League of America Inc., Publications Service, 67 Irving Place, New York, N.Y. 10003, $5.25, 1974, pp. 74.

  Update, covering same areas as above.

- Child Development Curriculum Guide, Basic and Semester Units, Draft, Elam, Georgia; and others, Clemson University, South Carolina, Vocational Education Media Center; South Carolina State Dept. of Education, Columbia, S.C., Office of Vocational Education. EDRS price, MF-$0.75, HC-$5.40 plus postage, 1972, pp. 111.

  This child development guide, part of a consumer and homemaking education unit, was developed in a 3-week curriculum workshop at Winthrop College, June 1972. The identified objectives and learning experiences have been developed with basic reference to developmental tasks, needs, interests, capacities, and prior learning experiences of students.

- Investigation of the Effects of Parent Participation in Head Start, Non-Technical Report, Bromley, Kathleen C., and others, MIDCO Educational Associates, Inc., Denver, Colo., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 72.

  This report presents the abstract and summary of the technical report of the project.

- Training Parents In Child Management Skills With The School As The Agent Of Instruction, Hamm, Phillip M., Jr.; Lyman, David A.; Lincoln Public Schools, Lincoln, Neb., EDRS price, MF-$0.75, HC-$1.85, plus postage, 1973, pp. 43.

Twenty-eight families who indicated an interest in learning child management skills were included in a training program involving four groups from three elementary schools in Lincoln, Neb. Sessions were held once a week for 7-12 weeks. The parents were taught child management skills through the use of operant techniques which they utilized in behavior change projects selected by themselves.

- Inclusion of Parents in Supportive Educational Experiences, King, Beverly Forman, available from Royal Enterprises, P.O. Box 4171, Fort Worth, Tex., 76106, $3.95, plus 35 cents handling, 1972, pp. 148.

A study was developed to involve parents in the learning environment of children attending a Head Start Child Development Center in the belief that it is crucial for the home and school to work closely for the development of the child. The children were pre- and post-tested on the Primary Mental Abilities Test and scored significantly higher on the post-test. It was concluded that take-home packets contributed to the child's awareness of his mother's helping role. Child-parent-teacher interaction improved. Although a high degree of motivation appeared to be present during the study, results of tests do not support increased motivation.

- Child Development-Head Start Program, Hartford City Board of Education, Hartford, Conn., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 13.

This Head Start program has special provisions for Spanish bilingual as well as handicapped children. Parent involvement is stressed. Results of the evaluation indicated gains in language development for the children in the program lasting through the end of kindergarten. Information gained from the parent questionnaire indicated that most parents had visited their child's school and/or worked with the teacher.

- Perspectives on Parent Participation in Project Head Start: An Analysis and Critique, MIDCO Educational Associates, Inc., Denver, Colo., EDRS price, MF-$0.65, HC-$9.87, 1972, pp. 226.

This report is one of four describing a project which investigated the impact of Head Start parent participation on the program's quality, on institutional changes in the community, on the Head Start children and on the Head Start parents themselves. Two types of parent participation were investigated: parents in decision-making roles, and parents in learner roles. Another type of involvement in which parents were paid employees of Head Start programs was also studied.

- Home Start Evaluation Study, Abt Associates, Inc., Cambridge, Mass.; High/Scope Educational Research Foundation, Ypsilanti, Mich., EDRS price, MF-$0.65, HC-$9.87, 1972, pp. 214.

An overview of the history, and current stage of development of Home Start at the national and local level is presented. Section I contains six basic areas of information. Home Start Goals and Objectives presents the national and local program goals and objectives as articulated to the Evaluation staff by OCD Head-quartors and Regional Staff and the 14 Home Start Programs. A brief summary of each of the 15 programs is presented in Part B. Local demographic information is aggregated nationally for staff and families and presented individually by program in Part C. A summary of the Information System being developed is found in Part D. Part E covers the recruitment of families and community interviewers for the nine programs involved in the Summative Evaluation and a description of the May and October field procedures. Part F is a detailed description of the history and start up operation of the National Home Start Program.

- Assistance To Local Follow-Through Programs, Annual Report, Ware, William B. and others, Florida Educational Research and Development Council, Gainesville; Florida University, Gainesville, Fla., Institute for Development of Human Resources, EDRS price, MF-$0.75, HC-$12.60, plus postage, 1973, pp. 274.

Describes the Florida Parent Education Follow-Through Program, the major elements of which are: (1) training mothers (two to each classroom) in the role of combined parent educator and teacher auxiliary; (2) training the teacher to use paraprofessional personnel; (3) developing materials for family use which take into account not only the school's goals for the child, but also, and equally, the family's expectations, goals, life style, and value system; and, (4) involving the Policy Advisory Committee in all phases of the program.

- Parent Involvement in Compensatory Education Programs, Stanford Research Institute, Menlo Park, Calif., EDRS price, MF-$0.75, HC-$4.50, 1973, pp. 107.

This report on parent involvement in compensatory education makes recommendations for future involvement based on intervention studies and program experience with parents. Various types of parental roles are discussed (tutors, paid employees, advisors, and decision makers). Research evidence on the effectiveness of parent involvement in increasing children's subsequent achievement is summarized, and suggestions are made for further research. The second section deals with policy implications of parent involvement.

- Reaching the Child Through Parent Education: The Florida Approach, Gordon, Ira J., and others, Institute for Development of Human Resources, Florida University, Gaines-ville, Fla., EDRS price, MF-$0.65, HC-$6.58, 1969, pp. 130.

The 11 papers in this report represent individual studies resulting from activities of the Institute for Development of Resources or from the Follow Through Program. The chief topics of discussion are: the disadvantaged infant; and the parent educator as a paraprofessional agent of change in the education of the disadvantaged.

Stimulation Activities for Training Parents and Teachers as Educational Partners: A Report and Evaluation, Champagne, David W.; Goldman, Richard M., Paper presented at the annual meeting of the American Educational Research Association, New York, N.Y., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 31.

This report summarizes a program to help parents learn some specific teaching skills to help their children learn. To develop a positive reinforcement teaching style was the basic objective because it is both the most simple style to learn and the most powerful style for building success in learning. Role-play stimulation in small groups was the basic strategy for both the teachers' learning to teach parents and for parents learning to teach their children.

Joint Training of Professionals and Non-Professionals for Team Functioning, Birnbaum, Martin L., Center for the Study of Unemployed Youth, New York University, N.Y., EDRS price, MF-$0.65, HC-$3.29, 1968, pp. 20.

The joint training of professionals and non-professionals to work together as a team has received heavy emphasis in two projects: Project ENABLE (Education for Neighborhood Action for Better Living Environment), and the Child Study Association, Project Head Start Training Program for Parent Participation. The objectives in working with parents are: (1) to help them improve their neighborhoods, (2) to help parents acquire power, and (3) to help parents achieve their aspirations and goals. Parent group education is the main method used.

Parent Education in the Adult Education Program, New York State Education Department, Albany, N.Y., Bureau of Child Development and Parent Education, EDRS price, MF-$0.65, HC-$3.29, 1968, pp. 10.

The concept of parent education, i.e., activities or programs that offer parents an opportunity to gain information and knowledge to aid them in their role as parents, is outlined and discussed.

An Early Intervention Project: A Longitudinal Look, Gordon, Ira J., Institute for Development of Human Resources, Florida University, Gainesville, Fla., EDRS price, MF-$0.75, HC-$3.15, plus postage, 1973, pp. 73.

This report describes the longitudinal research conducted in an early intervention program since 1966. The program is characterized by the use of paraprofessionals serving as home visitors and parent educators. Data collection has included measures of children's behavior and development, parent-child interactions, and parent variables such as locus of control and self concept. It is concluded that the basic model of intervention works, although many refinements in the delivery system, training courses, and measurement procedures are needed.

- Home Start Evaluation Study, Case Study Summaries, Jerome, Chris, Ed., Aby Associates, Inc., Cambridge, Mass., High/Scope Educational Research Foundation, Ypsilanti, Mich., EDRS price, MF-$0.75, HC-$10.20, plus postage, 1973, pp. 208.

  The fourteen case study summaries included in this booklet are part of "Interim Report III" of the "Home Start Evaluation Study." Each case study was developed after field visits to each of the demonstration programs by case study workers from the evaluation agencies.

- TARCOG Home Start Program, Top of Alabama Regional Council of Governments, Huntsville, Human Resources Program, EDRS price, MF-$0.75, HC-$1.50, plus postage, 1973, pp. 6.

  This report describes the Top of Alabama Regional Council of Governments (TARCOG) Home Start Program. Five aspects of the program are presented: (1) the nutritional component aimed at helping parents make the best use of food resources; (2) the health program, involving provision of medical and dental services to Home Start children, and to siblings and parents when possible; (3) psychological and social services which include family counseling by Home Start staff, and referral and consultation services by mental health agencies; (4) education component, focusing on parent instruction; and (5) parent involvement, in which parents learn to improve interactions with the child at home, are encouraged to communicate openly with peers at group meetings, and to participate in community decision-making.

- The Impact Of The Head Start Parent-Child Center Program On Parents, Holmes, Monica, and others, Center for Community Research, New York, N.Y., EDRS price, MF-$0.75, HC-$16.20, 1973, pp. 340.

  This document is the final report of the study of impact on parents of the Parent-Child Centers (PCC) which are administered through Head Start, Office of Child Development (OCD). Designed for families whose incomes fall below the federally established poverty levels, the Parent-Child Center program focuses upon meeting needs of children from the time of conception to age three, and the needs of their parents. The demonstration program explores the feasibility and outcome of having parents involved in a program with their children. Based on the findings presented, the report concludes that it cannot be said that the PCC program as implemented had a profound effect on the majority of parents served. However, individual parents made some gains as a result of the program.

- Reaching Parents--The Why's and How's, Cantor, Barbara; Chabrow, Shelia, Available from the Parent Cooperative Preschools International, 20551 Lakeshore Road, Baie d'Urfe, Quebec, Canada, $0.50 for members; $0.75 for non-members, 1972, pp. 20.

  This guide provides ideas for organizing and conducting orientation and in-service parent education programs in nursery schools (particularly cooperatives).

- Program Handbook For Parent-School Involvement And Parent Education, Available from Southwest Educational Development Lab., 211 E. Seventh St., Austin, Tex., 78701, (no price quoted), 1971, pp. 308.

  This handbook is primarily concerned with the home, the school, and the community. It is felt that the relationship among these three institutions affects the total development of the child. The handbook is primarily geared toward migrant workers and their families with the hope that program development will make a significant impact on the education of migrant children. It has been pilot tested at three selected Texas Migrant Project schools.

- Individualized Amelioration of Learning Disability Through Parent-Helper-Pupil Involvement, Final Report, Murray, Beulah B., Austin Peay State University, Clarksville, Tenn., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 79.

  The study assessed the feasibility of training parents to ameliorate their children's learning disabilities in the area of reading. Parents were instructed in teaching their own children. Differences in gain scores and learning rate on the reading instruments tested the hypotheses of efficacy of parental help for 26 second graders. Treatment included diagnosis, teaching the parents personality theory, learning theory, and reading methodology, demonstration lessons with children, and parents teaching their children in 12 one-hour practicums. It is concluded that the findings indicate that some parents can be good remedial resources for their children's learning difficulties.

- Parent Participation Reading Clinic - A Research-Demonstration Project, Final Report, Wise, James B., Children's Hospital of the District of Columbia, Washington, D.C., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 69.

  The general purpose of this study was to explore the possibility of developing a Parent Participation Reading Clinic home-based instructional model for assisting in the teaching of reading to economically disadvantaged elementary school children. Working within a community-based child health care agency in Washington, D.C., the reading clinic offered an innovative model for providing remedial educational assistance to low-income educationally handicapped children through involvement of the child's parents or older sibling as a "home instructor" in the teaching process. The general findings of this study are interpreted as supportive of further development of this alternative compensatory education model.

- Adult Involvement in Child Development for Staff and Parents, A Training Manual, Pavloff, Gerald; Wilson, Gary, available from Publication Division, Humanics, 881 Peachtree St., N.E., Atlanta, Ga. 30309, $4, 1972, pp. 150.

  Ways to increase the involvement of parents in child development programs are presented in this training manual.

- Structuring Communication with Parents: Participation in Common Terms, Barnes, Delores, Center for the Study of Evaluation, California University, Los Angeles, Calif., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 38.

This study was conducted to identify the language difficulties encountered by parents in working with 106 goal statements for elementary education. A sample of 13 parents from middle to low socio-economic classes identified 1,265 words and phrases they did not understand. After the goals were rewritten, parents identified only 58 words and phrases as not understandable.

- Cross-Validation of Excuses and Cooperation as Possible Measures for Identification of Clinic Dropouts and Continuers, Bernal, Martha E., and others, Denver University, Denver, Colo., EDRS price, MF-$0.65, HC-$3.29, 1973, pp.27.

This report deals with parents who either drop out or continue to cooperate with procedures for identification of problem children. Some suggestions are made regarding measures for identifying dropouts and continuers in mental health agencies. These suggestions are based on data collected over two years while families were being recruited during the conduct of a clinical research project involving the identification of young discipline-problem boys. Dropping out or cooperative behavior by parents was predicted from early reactions to the project, particularly excuses made in contacts with agency staff.

- Incentives in Education Project, Impact Evaluation Report, Final Report, Planar Corp., Washington, D.C., EDRS price, MF- $0.65, HC-$13.16, 1972, pp. 398.

This report describes results of a demonstration project carried out in four cities during 1971-72. The project aimed at exploring the feasibility and impact of two different forms of money incentives payments. In one form -- the "Teacher-Only" mode l-- the teachers in a school were offered a series of bonuses ranging from $150 to $600 per class per subject, depending on the amount of gain shown by their students on standardized tests of reading and math. In the "Parent-Teacher" model, the same bonus offer was made to teachers;but in addition, there were cash payments of $12.50 to $50 offered to each parent, depending on the mean gain shown by all of the students in their child's class. The report notes that although it is possible that results reflect factors other than the incentive offer, the achievement gains observed for students in the Parent-Teacher model were substantially greater than those of the control group. Differences in achievement gain between the Teacher-Only model and the control group were negligible. Other results from the analysis of the attitude and behavior data also are presented and discussed, but no simple patterns were evident in these results.

- A Parent Education Program For Increasing Young Children's Sustained Attention to Verbal Stimuli, Alschuler, Irene, EDRS price, MF-$0.75, HC-$1.50, plus postage, 1971, pp. 16.

This study shows the effectiveness of two parent education programs designed to increase young children's sustained attention to verbal stimuli. Forty 18- to 24-month-old children and their mothers served as subjects.

- The Parent Involvement Program, A Final Report, Dusevicz, Russell A., West Chester State College, Learning Research Center, West Chester, Pa., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 43.

The Parent Involvement Program was designed to help low-income disadvantaged mothers teach their young children during the infant and toddler stages at home to help prepare them for later school entrance. The first two sessions began in the spring, 1972, with 19 mothers participating. A tutor visited each mother for one hour each week to discuss specific aspects of child development and to provide her with specific related activities to work on with her child. The program was considered successful: there was a large increase in the amount of mother-child interaction; mothers were a little more understanding of child behavior; and children improved physically, mentally, emotionally, and socially.

- A Narrative of Head Start Parents in Participant Groups, Wohlford, Paul, EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 57.

Sensitivity training groups rarely have been conducted among people of low income. A modification of the laboratory training method, here called the "participant group method," was used with low-income black parents of Head Start children to demonstrate under what conditions participant groups might be helpful to parents and their children. Eight different groups each met twice a week for eight weeks within the context of either helping the child with language skills at home or helping the parents with their problems of child-rearing. It was concluded that the participant group method seems to be a very effective vehicle to deliver community-clinical psychological services directly to low-income parents for educational, remedial, and preventive functions regarding their preschool children.

- Home-Oriented Preschool Education: Evaluation Of The Prototype Home Visitor Package. Technical Report No. 45. Shively, Joe E., and others, Appalachia Educational Lab., Charleston, W. Va., EDRS price, MF-$0.75, HC-$4.20, plus postage, 1974, pp. 86.

An evaluation of the HOPE (Home-Oriented Preschool Education) Training Package for home visitors (paraprofessional educators). The home visitor is one part of the three-way--home, group, television-integrated instruction program being developed by the Appalachian Educational Laboratory for the education of preschoolers.

Parent Involvement Staff Handbook: A Manual for Child Development Programs, Lundberg, Christina M.; Miller, Veatrice M., available from the Day Care and Child Development Council of America, 1401 K St., N.W., Washington, D.C., 20005, $2, plus .50 postage and handling on orders under $5, and 10% of total to orders $5 for postage and handling.

A handbook to guide coordinators of parent activities in their role in a quality Head Start program. Discussion includes the following: motivation, informal and formal participation, teamwork, and total involvement. A bibliography is attached.

Principles of Home Visiting, The Day Care and Child Development Council of America, Inc., 1012 - 14th St., N.W., Washington, D.C. 20005, $2.00, 1975.

Tells the story, with photographs, of some of the joys and pitfalls in the life of a home visitor. Developed after two years of working with parents and children of Southern Appalachia, the booklet describes some of the basic principles needed in successful home visiting. They include sensitivity to the family's pride and dignity, knowing when to act and when to wait, an awareness of the political and power structure of the community. Not appropriate for school-age parents. May be helpful for teachers and administrators in developing sensitivity to the needs of people who live in poverty.

A Guide for Home Visitors (Preliminary Draft), Barbrack, Christopher, and others, Demonstration and Research Center for Early Education, Peabody College for Teachers, Nashville, Tenn., Available from Information Office, DARCEE, Box 151, George Peabody College, Nashville, Tenn. 37203, $2, 1970, pp. 197.

To increase the educability of preschool children from low-income homes, the Demonstration and Research Center for Early Education (DARCEE) devised a home visiting program to teach the mother to be an effective teacher of her child at home. The DARCEE guide is intended as one resource to help provide information for persons in training to be home visitors and to help trainees develop skills and attitudes necessary for changing maternal patterns of interaction where necessary. References and a glossary of terms are included. Appendix A lists suggested activities for home visits. Appendix B lists a sample unit.

Guide for Group Leaders for "Parents are Teachers: A Child Management Program", Becker, Wesley C., Available from Research Press Co., 2612 N. Mattis Ave., Champaign, Ill. 61820, $2, 1971, pp. 41.

This manual is designed to assist group leaders in training parents with the child management program, "Parents Are Teachers". Activity outlines for each of the 10-week sessions show the teacher how to present parents with various kinds of reinforcement and discipline systems. Hypothetical situations are used to teach parents how they can encourage their children to help themselves.

- Reaching Parents--Parent Programming and Workshop Planning, Chisholm, Joan, available from Parent Cooperative Preschools International, 20551 Lakeshore Road, Baie d'Urfe, Quebec, Canada, $0.50 for members; $0.75 for non-members, 1972, pp. 11.

  This booklet provides suggestions for organizing programs and workshops for parents of children in cooperative preschools. Workshop topics, suggestions for selecting speakers, and ways to encourage attendance of fathers are discussed.

- The Development and Evaluation of a Parent Training Manual for Home Instruction, Yaman, Nancy; Hanson, Ralph A., Southwest Regional Educational Lab., Inglewood, Calif., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 24.

  This paper describes the home-based Parent-Assisted Learning Program (PAL) developed by the Southwest Regional Educational Lab. In developing the PAL guide four basic guidelines were followed: (1) minimizing the reading requirements for parents, (2) providing a means for parents to practice skills being taught, (3) providing a means for parents to evaluate their own learning, and (4) keeping training procedures as brief as possible.

- The New Orleans Model for Parent-Infant Education, Rabinowitz, Melba, Available from Curriculum Specialist, Parent Child Developmental Center, 3300 Freret St., New Orleans, La. 70115, no charge, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 19.

  This paper states the basic assumptions underlying the philosophy and methods used at the Parent Child Development Center. The assumptions discussed in relation to program content are: (1) some parents have child-rearing styles which negatively influence some aspect of their child's development; (2) parents need a general base of child-rearing information in order to make informed choices about their own practices; (3) parents who understand underlying principles of human development will be more likely to use these forces to support growth and learning; and (4) adults and children learn best in a supportive, self-respecting relationship with others. Methods of teaching parents include the observation of models of adult-child interaction styles, and parent participation in discussions and demonstrations on the management of children in a variety of situations. The program emphasizes the parent's language and vocabulary development to help the parent become more independent in seeking child development information.

- Strategies for the Design of Parent Training Programs: Intellectual Stimulation and Motivation of Young Children, Morreau, Lanny E., Available from Central Midwestern Regional Educational Lab., Inc., 1640 E. 78th St., Minneapolis, Minn. 55423 (no price quoted), 1972, pp. 82.

  A summary of the input of seven professionals to the planning and development of a parent-training program, "Teaching Your Child," is presented. The articles included are written as applied demonstrations of decision rules to be incorporated into programs for helping parents stimulate their children intellectually.

- Evaluating Parent Involvement. Issue Paper No. , Safran, Daniel, Available from Center for the Study of Parent Involvement, 2544 Etna St., Berkeley, Calif. 94704, $2.50, EDRS price, MF-$0.75, HC-$1.50, plus postage, 1974, pp. 19.

This paper poses a series of questions to assist programs in deciding what it is about parent involvement that they wish to evaluate. The questions focus on the nature of parent involvement, why it is needed, and what evaluation should include. A conceptual framework for research on the impact of parent involvement is suggested, and a plea is made for researchers and practitioners to acquire greater conceptual relativity and to look beyond student achievement outcomes as the standard of parent involvement's success.

- What Should Constitute the Curriculum of Black Schools and How Much Parent Participation? Brown, Frank, paper presented at the Annual Meeting of the American Educational Research Association, EDRS price MF-$0.75, HC-$1.50, plus postage, 1974, pp.17.

During the 1972-73 school year, a large Northern urban school district requested that a feasibility study for a community policy board to govern a junior high school be conducted. A committee was appointed to conduct the study. A part of the task was to sample the opinion of students, parents, and teachers. The study provides strong evidence suggesting that black students and parents desire a school curriculum that includes the teaching of basic skills: reading, writing, spelling, speech, mathematics, and the basic social sciences. It seems clear from this study that parental involvement in school matters is less desirable for those who have never witnessed full parental involvement than for those who have experienced it. Overall, black parents have expressed a strong desire for parental participation in school matters. Black students seem to be somewhat less concerned about parental involvement. Teachers are mildly receptive to the idea.

- Title I ESEA: How It Works, A Guide for Parents and Parent Advisory Councils. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock No. 1780-01231), $1.15, EDRS price, MF-$0.75, HC-$3.15, 1973, pp. 62.

Title I of the Elementary and Secondary Education Act (ESEA) is the largest federal aid to education program. This booklet is an effort to explain it.

- A Child Goes Forth, Taylor, Barbara J., Brigham Young University Press, Provo, Utah, $7.95, 1965, pp. 133.

Written for teachers of preschoolers, this book would not be appropriate for school-age parents to use on their own but may be useful for teachers and program administrators. It includes lesson plans, ideas for teaching in small groups, creative use of materials. Helpful bibliographies complete each section.

- Sparks, Activities to Help Learn At Home, Belton, Sandra and Terborgh, Christine, Behavioral Publications, 72 Fifth Ave., New York, N.Y. 10011, $4.00, 1972, pp. 120.

An excellent resource for school-age parents to help them develop pride in themselves as teachers of their own children. Easy to read, easy to follow multi-ethnic illustrations. The book is divided into two parts, the first is arranged in subject areas such as reading, mathematics, science, and art; in the second, activities are arranged by place and time. Each activity is spelled out with simple directions for "what you need" and "what you do." The introduction contains a word of caution that may be especially helpful for school-age parents: "Always praise your child when your child tries to do something. Accept what your child does with the understanding that your child is doing his or her best. Do not feel disappointed if your child forgets things you have taught before or do not expect perfection."

- A Report on the Evaluation of the Parent/Child Toy-Lending Library Program, Nimnicht, Glen P., and others, Far West Lab. for Educational Research and Development, Berkeley, Calif., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 87.

The Parent/Child Toy-Library Program is described and a report is given of its evaluation. The program is a 10-week course for parents of three-and four- year old children, an educational Toy Library for the parents, and a training program for the teacher-librarians who will teach the course and operate the library. Evaluation of the children's achievement was made through comparison of pre-test and post-test scores on the Responsive Test. Results indicate that the children learned a considerable amount because of their involvement with the program.

- Recipes For Fun ($2.00), More Recipes For Fun ($2.00), Recipes For Holiday Fun ($2.00), I Saw a Purple Cow and 100 Other Recipes For Learning ($2.95), Cole, Ann; Haas, Carolyn; Heller, Elizabeth; and Weinberger, Betty, Parents as Resources (PAR) Project, 464 Central Ave., Northfield, Ill. 60093.

This series of activity books for parents and others who work with children contains a multiplicity of good ideas for using simple household items such as paper bags, cardboard tubes, egg cartons, boxes, etc. to make attractive toys and games that offer learning experiences for children. Excellent as idea starters. Geared toward preschooler rather than infants and toddlers. Could be used by school-age parents as a resource.

- Yellow Pages of Learning Resources, Wurman, Richard Saul, The MIT Press, Massachusetts Institute of Technology, Cambridge, Mass. 02142, $1.95, 1972, pp. 94.

Takes a unique view of the city--any city--as a learning laboratory. Presented in the format of the yellow pages of a telephone directory, this attractive resource shows that classrooms are not the only places for learning and converts the environment of any city into a new and exciting classroom. Starting with the question "what can you learn from . . ." an accountant, a bakery, a telephone, a vacant lot, courtroom, city hall, hotel, this book provides some fascinating leads. It can be used by parents, teachers and students. The reading level is easy. An appendix lists educational programs around the country that are using environments other than the classroom as a learning resource

- An Assessment of Cognitive Growth in Children Who Have Participated in the Toy-Lending Component of the Parent-Child Program, Rayder, Nicholas F., and others, Far West Lab. for Educational Research and Development, Berkeley, Calif., EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 12.

This report is one of a series evaluating the Parent/Child Program designed to provide preschool education for 3- to 4-year-olds whose parents cannot afford nursery schools but yet are above the income level for Head Start participation. Two groups of parents participated in separate but equivalent parent/child courses in a classroom setting, 2 hours a week for 10 weeks, and were taught how to teach their children through the use of educational toys.

- Parent Education and Family Life, Child Development: The First Five Years, Bureau of Continuing Education, Curriculum Services, New York State Education Department, Albany, N.Y., Available from Publications Distribution Unit, State Education Bldg., Albany, N.Y. 12224 (free to N.Y. State school personnel when ordered through State school administrator) EDRS price MF-$0.65, HC-$3.29, 1970, pp. 79.

First in a series of three child development lesson plan manuals for adult basic education instructors, this publication contains materials on pregnancy and preparation for parenthood, infant care, characteristic child behavior at different ages, the physical and emotional needs of small children, their social and intellectual needs, and family relationships and responsibilities. Each lesson covers background material for instructors, objectives, lesson motivation and development, suggested activities, and student worksheets and fact sheets. A lesson plan evaluation checklist is also included.

- Communication: Parents-Children-Teachers, Association for Childhood Education International, Washington, D.C., $1.75, pp. 76, 1969

Written for teachers and administrators rather than for parents and children, this booklet stresses how school officials can increase communication by making parents feel more accepted and comfortable in the school setting. May be helpful for teachers and administrators. Does not deal with the problems of school-age parents.

- The History of Childhood, de Mause, Lloyd, (editor), The Psychohistory Press, 2315 Broadway, New York, N. Y. 10024, $12.50, 1974, pp. 450.

Did parents always act much the same as they do today? Did they love and care for their children in similar ways or has child care changed substantially over the centuries? How did parents feel about their children, what did they say to them, what were their private fantasies about them, and how did these affect growing up in the past? These questions are taken up by 10 psychohistorians who surveyed the history of childhood during the past two thousand years. Their book is the result of a five-year research project sponsored by the Association for Applied Psychoanalysis. It contains chapters on the evolution of the concept of childhood, late Roman and early Medieval childhood, children and parent relationships from the Ninth to the Thirteenth Centuries, the middle-class child in Fourteenth and Sixteenth Century Italy, Fifteenth and Sixteenth Century English childhood, trends in Seventeenth Century French child rearing, child rearing in Seventeenth Century England and America, Eighteenth Century American childhood, childhood in Imperial Russia, and childhood in Nineteenth Century Europe.

- Two Worlds of Childhood, Bronfenbrenner, Urie, Simon and Schuster, Inc., 630 Fifth Avenue, New York, N.Y. 10020, $2.95, 1970, pp. 190.

This comparative study of the process of socialization contrasts child rearing in two cultures, the U.S.'s family-centered style and the U.S.S.R's collective-centered system. "What most differentiates Russian parents from their American counterparts," Bronfenbrenner observes, "is the emotional loading of the parent-child relationships, both in its positive and negative aspects. On the one hand both adults and children in the U.S.S.R. are more demonstrative toward each other. On the other hand, any departure from proper behavior evokes from the parent a curtailment of this demonstrativeness." This also holds true for life in the children's collective. The psychological effects of collective upbringing and strong peer pressure results in behavior consistent with the values of the adult society and succeeds in inducing its members to take personal initiative and responsibility for developing and maintaining such behavior in others. On the other hand, despite collective upbringing, emotional ties between Russian parents and children are exceptionally strong. "Maternal overprotection, overt display of physical affection, and simple companionship between parents and children appear more pronounced in Soviet society than in our own," the author notes. "American society emerges as one that gives decreasing prominence to the family as a socializing agent." This is the result of centralized schools, the working mother, and increasing use of day care. American youngsters now spend more time with their peers and more time watching television than they do with their families. Age segregation is all-pervasive in American society. Bronfenbrenner suggests: "If the Russians have gone too far in subjecting the child and his peer group to conformity to a single set of values imposed by the adult society, perhaps we have reached the point of diminishing returns in allowing excessive autonomy and in failing to utilize the constructive potential of the peer group in developing social responsibility and consideration for others." He recommends the involvement of parents, and other adults, in the lives of children, and greater involvement of children in responsibility on behalf of their own family, community, and society at large. This is a thought-provoking book for parents, teachers, and administrators.

Education for Parenthood and the Schools, Kruger, W. Stanley, Bureau of Elementary and Secondary Education, Washington, D.C. EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 23.

School-related programs of the Education for Parenthood Project are described. The purpose of the project is to provide young people with knowledge and skills to enable them to be effective parents. The rationale for such a program is based on the ineffectiveness of current laissez-faire policy in schools, as reflected by problems of child abuse, retardation, infant care, drug abuse, and divorce rate for young marriages. Six programs now in existence in high schools around the country are described.

Exploring Childhood, Education Development Center, Social Studies Program, 15 Mifflin Place, Cambridge, Mass. 02138.

"Exploring Childhood" is a year-long course of study for junior and senior high school students with the objective of helping them learn more about themselves while working directly with preschool children. The study program consists of three modules each of which is supported by a wide variety of resource materials including student booklets, study guides, films, records, and posters. Module I, "Working with Children," sets the stage for actual field work by helping students develop a sense of competence before starting to work with children and builds the class into a support group in which failures as well as successes can be discussed. Commonplace situations with children and their teachers are presented as case studies through film, audio-tape, story, and photo essay. Module II, "Seeing Development," requires students to spend two or more hours a week working at a day care center, kindergarten, or other child care center. Working in cooperation with the field-site teacher, or caregiver, they are able to make on-the-spot observations about the various stages of child growth and development. Module III, "Family and Society," helps students understand the social forces that influence a child's life. This section uses a series of documentary films showing interactions in a variety of families. The material is designed to heighten students' perception of what is transmitted to children in daily life, and to let students experience the childrearing styles of families other than their own in order to gain insight into attitudes, traditions, and values of others. While not designed specifically for adolescents who are parents, this course may be particularly valuable for young parents, since it gives them an insight into child growth and development and the societal forces that influence the family. The curriculum materials are attractive and clearly presented, particularly those which explain complex psychological theories. While the price for the entire package ($1,800.00) is high, materials may be purchased as single units at reasonable rates. For example, a program for school-age parents may find that the Family and Society section fits into its own curriculum and may order only this unit, or a program may want to use only the filmstrips on child development. For further information, contact the Education Development Center at the above address.

- Educational Services for School-Age Parents, A Resource Manual, New Brunswick Board of Education, N.J., New Jersey State Dept. of Education, Trenton, N.J. Office of Program Development, EDRS Price, MF-$0.65, HC-$4.20, plus postage, 1974, pp. 82.

This resource manual contains the goals, evaluation design, evaluation results, and complete description of a program developed for school-age parents in the New Brunswick, N.J. public schools. The project was validated in 1973 by the standards and guidelines of the U.S. Office of Education and found to be successful and innovative. It provides educational, nutritional, and health care services for the pregnant student while she is attending public school. Guidelines are offered in the following areas: initiating the program, implementing the program, and administration of the program. Forms and reference materials are appended.

- Preparation for a Dual Role: Homemaker-Wage Earner with Adaptations to Inner-City Youth, Volume II, Final Report, Dalrymple, Julia I., and others, Purdue University, Lafayette, Ind., EDRS price, MF-$0.65, HC-$13.16, 1970, pp. 321

These resource curriculum materials for a home economics course are presented here for use by teachers to prepare disadvantaged students for their homemaker, family-member role and the dual roles of homemaker and wage earner. The purpose of the study is to discover some implications for teaching those students from poverty areas in an urban setting a newly designed home economics course. The thrust of this course is to prepare the student for a role as homemaker and family member in a changing society. It also prepares the student in occupations utilizing home economics knowledge and skills.

- Pre-Parental Education, Final Report, Washburne, Vera; Washburne, Norman F., Department of Psychology, Community College for Adult Education, Lake Erie College, Painesville, Ohio, EDRS price, MF-$0.65, HC-$3.29, 1968, pp. 33.

The objective of the pilot studies was to evolve a course which would increase the confidence and competence of young people to undertake the responsibility of parenthood, as well as to sharpen the awareness and sensitivity of those who had already undertaken this role. Three training groups of students were selected. One group consisted of college seniors contemplating marriage, one consisted of young parents, and another of parents of adolescents. The hypothesis was justified that there would be identifiable recurrent problems or themes in all three groups. All of the participating students felt a great need for such a course and recommended that it also be available to high school students as well as to students in adult education.

- Preparing Tomorrow's Parents, Ogg, Elizabeth, Public Affairs Pamphlets, 381 Park Ave. South, New York, N.Y. 10016, $0.35, 1975, pp. 28.

This pamphlet notes that three-fourths of all teen-age first pregnancies are conceived before marriage and that these young people begin their parenthood with little idea of what it entails. Until lately the nation's high schools have offered only highly academic family life and child development courses with no practical experience outside the classroom. The booklet gives an overview of the Education for Parenthood program jointly sponsored by the U. S. Office of Education and the Office of Child Development and details how it is working in various parts of the country. It also outlines other parenthood education projects being sponsored by some national youth-serving organizations such as The Boys Club of America, The Salvation Army, Boy Scouts and Girl Scouts and the National 4-H Foundation.

- Liberating Young Children From Sex Roles, Greenleaf, Phyllis Taube, New England Free Press, 60 Union Square, Somerville, Mass. 02143, $0.30, 1972, pp. 22.

Describes how adults consciously and unconsciously teach sex role stereotypes and gives ways to challenge the ideology of sexism as it is expressed in the play of young children. This booklet is good background for those starting a day care center.

- Living Room School Project, Final Evaluation Report, 1972-1973, McNally, Lawrence, Nassau County Board of Cooperative Educational Services, Jericho, N.Y., EDRS price, MF-$0.65, HC-$6.58, 1973, pp. 150.

This report is an evaluation of the Living Room School Project in Nassau County, N.Y., which stresses the use of home settings for a preschool program that involves children and parents. The project's major objective was to help parents meet their child's needs as parents learn to recognize themselves and their home as educational resources. The curriculum emphasizes activities indigenous to a home setting, and is designed to promote cognitive and affective development.

- Current Trends and Issues in Day Care in Canada, Clifford, Howard, paper presented at the Northwest Regional Conference of the Child Welfare League of America, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 32.

Major issues concerning day care in Canada are discussed, including: infant care, family day care, emergency care, pluralism, children's needs, community based service, parent choice, parent involvement, and staff qualifications or staff training.

- Relationship Opportunities In Day Care: Changes In Child And Parent Functioning. Heinicke, Christoph M. and others, Culver City Unified School District, Calif.; Reiss-David Child Study Center, Los Angeles, Calif., EDRS price, MF-$0.75, HC-$6.60, plus postage, 1973, pp. 130.

  This study investigates relationships between the family environment and maintenance of children's gains from early childhood educational experiences. Participating families received training and counseling from social workers, who focused on improving parent-child relationships. Results indicated that intervention with the parents did lead to measurable behavior change in their children.

- Project Patrol: Evaluation (Second Operational Year) and Proposal for Continuation Grant (Third Operational Year). Cooperative Educational Service Agency 3, Gillett, Wis., EDRS price, MF-$0.75, HC-$4.20, plus postage, 1972, pp. 90.

  Project Patrol is an experimental approach to pre-school education involving a parent training program, based on the techniques of behavior modification. This report includes the rationale, the analysis of main objectives, and the administrative organization of the project at the completion of its second year in operation.

- Learning Together, An Anthology of Features and Highlights from "The Parent Cooperative," available from Parent Cooperative Preschools International, 20551 Lakeshore Road, Baie d'Urfe, Quebec, Canada, $2.00, 1970, pp. 46.

  An anthology of features and highlights from "The Parent Cooperative" is presented, commemorating the tenth anniversary of the Canadian Parent Cooperative Preschools International. Included in the review are discussions of the theory behind a good cooperative preschool education, the relationship between parents and teachers working together as educators, the extension of the cooperative ideal reaching out around the world and for variously handicapped children, ways in which parents and educators can help enrich the child's experiences, and successful curriculum of a good preschool program. The book is extensively illustrated.

- Home-Oriented Preschool Education: Program Overview and Requirements. Alford, Roy W., Appalachia Educational Lab., Charleston, W. Va., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 38.

  The introductory volume to the Home-Oriented Preschool Education (HOPE) Program describes all elements of the program and the requirements for implementation. HOPE is an approach to education for 3-, 4-, and 5-year old children that uses televised instruction, mobile classroom instruction, and parent instruction. This booklet is one of 7 designed to guide program implementation and operation.

- South Douglas County Early Childhood Education Project, First Year Evaluation Report, South Umpqua School District, Myrtle Creek, Ore., EDRS price, MF-$0.65, HC-$6.58, 1972, pp. 129.

The South Douglas County Early Childhood Education Project serves preschool children from 3 to 5 years old and handicapped children from birth to age 5. The program, designed to establish a parent-school partnership, brings teaching ideas and materials to the home of participating families. Parents control the educational process, aided by community coordinators who visit homes once every two weeks to explain each learning package to parents, assist, if requested, in teaching the tasks, and suggest additional material and methods. Group meetings and field trips are held periodically.

- Classroom on Wheels, Murfreesboro City Schools, Murfreesboro, Tenn., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 27.

Designed for 3- and 4-year old disadvantaged children and their parents, a mobile unit consisting of a renovated school bus turned classroom is described. It travels to three areas daily for a 2-hour period. The program for children is designed primarily for developmental skills--visual, sensory, auditory, and cognitive. Activities emphasize language and concept development, the development of a positive self-image, and enrichment experiences. A program for parents operating concurrently includes home visits and contacts, group meetings, newsletters and homework, book, picture, and toy lending libraries, and a "teaching tiny tots" lesson plan. Results are reported which exceed expectations in language and measured IQ gains as well as in personal and social development. Appendices provide information on approximate costs for operation of a mobile classroom and on floor plans.

- Child Care Handbook, American Home Economics Association, 2010 Massachusetts Ave., N.W. 20036, $4.00, 1975, pp 74.

"Child care is more than mere baby-sitting service. It is a family service intended to supplement home care," this booklet states. It presents a thorough analysis of the various types of child care and the issues involved. It gives tips on how to structure creative experiences for children in day care, and provides an excellent list of books, records, songs, and art materials. It offers a complete description of the type of physical environment--indoor and outdoor space--most conducive to quality child care. Also covered are other subjects such as staffing, working with parents, guidance and health, and finance and business management. An extensive bibliography lists a variety of helpful books, films on child care, recipes for art materials, and sources of information on records, supplies and equipment, and information on the special child.

- Clustering and the Selection of a Representative Sample of Parent Child Centers for a Study of the Impact of the National Program, Carrier, Bruce; Holmes, Monica, Center for Community Research, New York, N.Y., EDRS price, MF-$0.65, HC-$6.58, 1972, pp. 180.

  Thirty-three Parent-Child Centers (PCCs) are grouped into five clusters according to thematic orientation of content or intent for parents' and children's programs in order to provide models which may be viewed as strata in selecting Centers as sampling points for Phase II of the national PCC evaluation -- an in-depth study of project impact on low-income member families at the sample Centers. The rationale is presented for the choice of the particular Center to be studied within each cluster.

- A Report of the Home-Based Working Conference, Learning Institute of North Carolina, Learning Institute of North Carolina, Durham, N.C., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. [illegible].

  The primary objective of this conference was to provide Head Start program representatives with information and descriptive materials on approaches to home-based education for preschool children with the parent as the focal point. Descriptions of six different programs outline objectives, services, advantages, and disadvantages, cost, evaluation plans, and staff training. Also included are conference evaluation data, brief descriptions of other home-based programs, and a bibliography.

- The Sands School Project: Third Year Results, Gross, Ruth B., and others, Department of Psychology, Cincinnati University, Cincinnati, Ohio, EDRS price, MF-$0.65, HC-$3.29, 1970, pp. 55.

  The third year of study comparing the performance of four groups of children attending Sands School is reported. The four groups were a Montessori classroom, a nongraded classroom, children with preschool experience and in conventional (graded) classrooms.

- Parent Cooperative Group Child Care, Faragher, John, and others, EDRS price, MF-$0.75, HC-$3.15, plus postage, 1973, pp. 58.

  A model for cooperative day care is proposed which aims to protect the beneficial aspects of the child-rearing relations of the nuclear family by substituting a caring group of parents for the caring solitary parent. Described are some of the issues and problems involved in the creation of the State Street Center Parent Cooperative in New Haven, Conn.

- The Challenge of Day Care in the Seventies: One Agency's Response, Blumenfeld, Harry; Schwimmer, Barbara, EDRS price, MF-$0.65, HC-$3.29, 1973, pp.22.

The Jewish Board of Guardians, in collaboration with the Agency for Child Development, developed a program to respond to the complex mental health concerns of children in day care, their families and the communities in which they live. The program includes on-site consultation, staff development sessions, and para-professional training. An assertion is made that a professional white mental health agency with a knowledge of child growth and development developed out of years of practice and research has a significant contribution to make to institutions that serve minority children and their families.

- Prekindergarten Day Care Is School -- Plus, Bureau of Child Development and Parent Education, New York State Education Department, Albany, N.Y., EDRS price, MF-$0.65, HC-$3.29, 1973, pp.79.

This document presents guidelines to help school personnel design efficient administration of day care services for young children and their families.

- Forty Innovative Programs in Early Childhood Education, Fallon, Berlie J., Ed., Available from Lear Siegler, Inc., Fearon Publishers, 6 David Drive, Belmont, Calif. 94002, no price quoted, 1973, pp. 285.

This book contains detailed descriptions of forty programs in early childhood education. Programs are innovative in the sense that each represents new departures and approaches for the implementing school systems. A resources section includes an overview of the field of early childhood education and fourteen excerpts from materials provided by schools with exemplary programs.

- Piagetian Theory on Imitative Behavior in Childhood: Direction for Parent-Infant Education, Simmons, Patricia, M., Paper presented at the Special Invitational Interdisciplinary Seminar: Piagetian Theory and Its Implications for the Helping Professions, University of Southern California, Los Angeles, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 14.

Piagetian theory provides direction and support for an early identification, early intervention focus for special education of handicapped children. This focus includes guidance and training for parent and child to enhance their relationship and to facilitate the child's movement through normal developmental sequences in sensory-motor, cognitive, linguistic, and social areas.

- Beyond Benevolence--The Mental Health Role of the Preschool Teacher, Stein, Myron, and others, Available from Center for Preventive Psychiatry, 340 Mamaroneck Ave. White Plains, N.Y., 10605, $1, 1969, pp. 52.

This report describes a 4-year project at the Sarah Lawrence Nursery School in which the teacher's role was expanded to include extensive work with parents. Nursery school teachers, after conferring with psychiatric consultants about children's problems, had frequent meetings with parents in which observational and childrearing information was shared, and effective strategies for dealing with individual children were worked out.

- Children and Their Parents in Brief Therapy, Barten, Harvey and Barten, Sybil S., Behavioral Publications, 72 Fifth Ave., New York, N.Y. 10011, $13.95, 1973, pp.323.

A collection of papers reflecting the growing movement in child psychiatry to use short-term intervention. The papers include a sampling of innovative experime[illegible] the short-term treatment of children and their parents. In contrast [illegible] traditional long-term treatment, the therapist rapidly delineates the problem rather than waiting for a solution to emerge, the therapist urges the child and/or parents to explore and define available options for correction. The papers range from discussions of conflicts arising at crises of the prenatal period, or those stemming from unwarranted prenatal expectations to brief treatment of problems such as drug abuse and other difficulties of adolescents. Interesting for researchers, may be helpful to administrators.

- The Emotional Care of Your Child, Abrahamsen, David, Trident Press, 630 Fifth Ave., New York, N.Y. 10020, 1969, $0.75, pp. 287.

Writes as a psychoanalyst and as a parent, recognizes that it is not uncommon for parents to feel threatened when a demanding infant enters their lives. It is natural for the parent to see the child as an extension of self, but the author stresses that it is important for the child's growth that the parent separate himself from this attitude and develop feelings of empathy, insight, and objectivity. The reading level may be too sophisticated and demanding for school-age parents. The book could also be upsetting by raising more issues than they are ready to deal with -- a Freudian approach to the Oedipus complex, for example. Sections on infancy and approaching adulthood may be helpful to teachers and administrators.

- The Education of Parents of Handicapped Children, Info-Pak 1, Selected Readings, Michigan State University, East Lansing, Regional Instructional Materials Center for Handicapped Children and Youth, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 29.

The information packet contains six abridged readings on the education of parents of retarded or disadvantaged children. Specific teaching techniques, such as recognizing individual performance levels, are offered to maximize retarded children's learning. A handbook on parent councils discusses parent involvement in school programs for disadvantaged children and suggests ways of implementing a program or undertaking activities.

- Report Of The Essential Early Education Project, Knight, Martha F., and others, Vermont University, Burlington College of Education; prepared with the cooperation of the Colchester and Chittenden South School Districts, EDRS price, MF-$0.75, HC-$15.00, plus postage, 1973, pp. 304.

Presented is the 1972-73 report of the second year of the Essential Early Education Project in two Vermont school districts to identify 5-year-old children eligible for special education, develop materials for dissemination, and continue the home-based parent training program. Noted is the refinement and replication of survey and testing procedures leading to the development of a census and survey manual and derivation of minimum objectives for the kindergarten year and from birth to 6 years.

- Working With Families: A Manual For Developmental Centers, Cansler, Dorothy P., Martin, Gloria H., Chapel Hill Training--Outreach Project, N.C., Council for Exceptional Children, Reston, Va., Head Start Information Project, Available from Council for Exceptional Children, 1920 Association Drive, Reston, Va. 22091, EDRS price, MF-$0.75, HC-$3.15, plus postage, 1973, pp. 68.

This manual, to be used in child development centers, presents guidelines for working with families of handicapped children. Reasons for initiating a family program are given to include fostering coordination of the child's training and keeping the program relevant to needs of families within the community. Guidelines are given for the following parental involvement strategies: family members as volunteers, the newsletter, observation of school activities, home followup reports to parents, sharing the learning accomplishment profile with parents, informal verbal feedback, individual conferences, individual home programs, materials-making workshops, group meetings, ideas for brothers and sisters, and information and referral services. A list of resource materials includes books, periodicals, films, and pamphlets.

- Excuses and Cooperation as Possible Measures for Identification of Clinic Dropouts, Bernal, Martha E., and others, Denver University, Denver, Colo., EDRS price, MF-$0.65, HC-$3.29, 1971, pp.23.

This report concerns parents who contact a mental health agency to obtain help for their children and do not cooperate with agency procedures. Some suggestions are made regarding measures for identifying cooperative and non-cooperative parents.

- Non-Categorical Preschool Model Program, Bolen, Jacqueline M., and others, Available from Instructional Materials Center for Special Education, 1031 S. Broadway, Suite 623, School of Education, University of S. California, Los Angeles, Calif. 90015, $5, 1973, pp. 122.

Special education teachers at the graduate level developed a model noncategorical preschool program for five normal or severely handicapped children which incorporated parent training and behavioral research. The staff assumed such tasks as designing classroom/clinic/observation areas, arranging for materials, training parents, and attending meetings. For each of the five students, 4- to 6-years-old, who were normal or had handicaps of oppositional behavior, Down's syndrome, physical and speech handicaps, or autism, assessments were made according to functional areas, skills, and personal-social characteristics. Data indicated that the five children acquired from 14 to 27 skills; that four children attained a minimum of two out of five competency levels, for each of seven developmental areas; that four children achieved full competency in one developmental level.

- A Demonstration Home Training Program for Parents of Preschool Deaf Children, Final Report, Miller, June B., Medical Center, Kansas University, Kansas City, Kans., EDRS price, MF-$0.65, HC-$9.87, 1970, pp. 204.

Methods for teaching parents techniques for stimulating audition and language development in their deaf infants were explored over a 3-year period. Videotapes were used as one method of instruction and evaluation. Recommendations were made concerning procedures for parent education, sequence of instruction, and program content.

- Family Education Program for Families of Preschool Hearing Impaired Children in Rural Alaska, Berglund, Jean B. and others, Alaska Treatment Center for Crippled Children and Adults, Inc., Anchorage, EDRS price, MF-$0.65, HC-$6.58, 1973, pp. 163.

Presented are guidelines of an Alaskan educational program for native and nonnative rural families of preschool, hearing-impaired children. The program is described as involving initial identification of the handicapped child, residence for one week by the family (at no cost) in a demonstration home in Anchorage at which time parents are instructed in ways to stimulate language development as part of daily life. Home visits and teacher training are also described.

- Children Adrift in Foster Care: A Study of Alternative Approaches, Sherman, Edmund, and others, Available from Child Welfare League of America, Inc., 67 Irving Place, New York, N. Y. 10003, $1.50, 1973, pp. 134.

  This project was prompted by concern about the tendency for temporary foster care to drift along without definite plans for the child's return home or movement into adoption, long-term foster care or other alternative arrangements. The foster care section of the Rhode Island Department of Social and Rehabilitative Services served as a "laboratory" to test certain strategies to combat this drift.

- Children At Risk, Day Care Council of New York, Inc., 114 E. 32nd St., N.Y. 10010, $1.75, 1972, pp. 27.

  This booklet discusses problems of child abuse from the point of view of the doctor, the hospital, the social agency, and those who are legally responsible to report suspected abuse. It contains sections on how to recognize an abused child and abusing parent, and what to do when abuse is suspected. It is focused primarily on conditions that exist in New York City.

- To Combat Child Abuse and Neglect, Irwin, Theodore, Public Affairs Committee, Inc., 381 Park Ave. South, New York, N.Y. 10016, $0.35, 1974, pp.28.

  Gives an overall picture of the problem of child abuse and neglect and details what is being done about it at the federal level and in several pioneering cities such as Nashville, Buffalo, Denver, Boston, Little Rock, Los Angeles, and New York. Describes self-help programs such as Parents Anonymous and tells what concerned citizens can do to help.

- Protecting The Child Victim of Sex Crimes Committed By Adults, De Francis, Vincent, American Humane Association, Children's Division, P.O. Box 1266, Denver, Colo. 80201, $4.95, 1969, pp. 230.

  This is the final report of a three-year study of the sexual abuse of children. It presents an analysis of the problem and its implications in terms of its enormous incidence, the severity of its impact on the victim, the contribution of parents to its occurrence, and the responsibility for social services.

- Guidelines for Schools, American Humane Association, Children's Division, P.O. Box 1266, Denver, Colo. 80201, $2.50 per hundred, 1971.

  This leaflet, addressed to teachers, nurses, counselors, and administrators, is designed to aid in identifying children in need of protection because of abuse or neglect. It lists what to look for if abuse or neglect is suspected.

- An Evaluation of the Bilingual Center for Preschoolers in District 17, ESEA Title VII Program, New York University, N.Y. Center for Field Research and School Services, EDRS price, MF-$0.65, HC- $3.29, 1973, pp. 48.

During the 1972-73 school year, Community School District 17 in New York City opened its Bilingual Center for Pre-schoolers, funded under Title VII of the 1965 Elementary and Secondary Education Act. The major findings for the program were: (1) the students' ability to communicate in their dominant (first) language improved substantially; (2) most of the French and Spanish dominant students achieved near comparable fluency in English as in their first language; the English dominant were not as advanced in their ability to use French or Spanish as their peers in the program; (3) positive self-image and respect for both cultures were developed; and (4) most kindergarten children are ready to begin to read.

- Parental Involvement in Bilingual Education, Fernandez, Irene, paper presented at preconvention workshop of the American Council on Teaching Foreign Languages, EDRS Price, MF-$0.75, HC-$1.50, 1973, pp.7.

The author states that hundreds of schools throughout the country are discovering that a positive factor for academic achievement is parental involvement. Schools are finding out that parents "do care" and that, given the opportunity, they can influence and further enhance the educational opportunities of their children.

- The Effects Of A Parent Training Program On The Question-Asking Behavior Of Mexican-American Children, Henderson, Ronald W.; Garcia, Angela B.; Arizona Center for Early Childhood Education, Arizona University, Tucson, Arizona, EDRS price, MF-$0.75, HC-$1.50, plus postage, 1972, pp. 23.

This investigation was designed to assess the effects of parent influences on the question-asking skills of their children. A total of 43 randomly selected, first grade, Mexican-American children were chosen as subjects and divided equally into a control and an experimental group. The results indicated that: trained parents had a significant effect on the target behavior of asking casual questions; and the experimenter's modeling procedures in the pretreatment condition also had a significant effect on question-asking behavior. Concluding discussion focuses on the importance of home instruction and support for school children and possible potential use of parent skills.

- Houston Parent-Child Development Center, Johnson, Dale L., and others, Paper presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, Pa., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 23.

The Houston Parent-Child Development Center was established to provide a basis for educational improvement for Mexican-American families and to yield basic information about the importance of the whole family for a child's success in learning. Certain cultural factors, such as language and sex role expectations were taken into account in establishing the program for a specific population.

- Responsive Environment Program for Spanish American Children (REPSAC), Final Evaluation Report, 1972-73, Askins, Billy E., and others, Adobe Educational Services, Lubbock, Tex., Clovis Public Schools, New Mexico, EDRS price, MF-$0.65, HC-$6.58, 1973, pp.103.

During 1972-73, 30 three- four- and five-year-old, low birth weight Spanish American children who reflected such handicaps as physical difficulties, learning aptitude, perceptual and motor problems, language problems, and economic, cultural, and educational deprivation participated in the Responsive Environment Program for Spanish American Children (REPSAC) at Clovis, New Mexico. The evaluation examined the program's three components: instruction, staff development, and community-parent involvement. Among major findings was that REPSAC students made significant gains in Spanish language development and speech development

- A Plan for Indian Parent Involvement in South Dakota Day Schools, Peters, Donald C., Master's Thesis, Northern State College, Aberdeen, S.D., EDRS price, MF-$0.65, HC-$3.29, 1970, pp.37.

The purposes of this study were to gain insight into some of the reasons for the attitude of the American Indian parent toward their child's school progress through a review of influential historical factors; determine the degree and the effect of parental interest today, and make recommendations and suggestions for improving parent involvement in the school. Several recommendations are presented, e.g., changing the teaching methods and classroom setting to accommodate Indian learning styles by teaching Sioux language, nature lore, moral values, and by bringing the Indian point of view into the classroom.

- University of Hawaii Preschool Language Curriculum, Honolulu, Hawaii: A Program of English Conversation for Preschool Children of Multi-Ethnic Backgrounds, Model Programs -- Childhood Education, Booklet is one in a series of 34 descriptive booklets on childhood education programs prepared for the White House Conference on Children, December 1970, Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (HE 5.220:20156) $0.20, 1970, pp. 24.

This booklet describes the University of Hawaii Preschool Language Curriculum which teaches preschool children of multi-ethnic backgrounds to speak English and to use language as a tool for communication, thought, and problem solving. The program was designed to improve both linguistic and cognitive abilities.

MAGAZINES, ARTICLES, AND RESEARCH PAPERS

- Day Care and Early Education, Behavioral Publications, Inc., 72 Fifth Ave., New York, N.Y. 10011, $15 yearly subscription, 4 issues per year.

  This magazine, published five times a year, is an excellent resource for programs for school-age parents. Teachers and administrators will find a wealth of good ideas in special articles on child development, parental involvement, day care, and other child-centered concerns. Regular features such as a Washington Report, questions and answers on child care, and book reviews are filled with helpful information. One regular feature, "Learning Set-Ups" by Susan McClanahan, creator of an early childhood reading series for Macmillan Co., can be used by school-age parents themselves. Each issue offers several pages of short, easy to read, easy to understand directions illustrated with large fanciful drawings. They offer practical suggestions for turning play time with babies and toddlers into learning time.

- Children Today, published six times a year by the Children's Bureau, Office of Child Development, Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, $6.10 a year.

  Covers a broad range of issues related to children and youth, and their families. Authors include pediatricians and parents, scientists and volunteer workers, teachers and psychologists, social workers, and nurses, public and civic leaders. A News and Reports section is especially helpful in keeping readers informed about new ideas, programs, and policies in the field of children and youth.

- Young Children, published six times a year by the National Association for the Education of Young Children, 1834 Connecticut Ave., N.W., Washington, D.C. 20009, free to members, $10 a year for nonmembers.

  Concerned with the world of young children and early childhood education. Keeps members informed about what is happening in the organization. Contains high quality articles on a variety of subjects from the impact of television and the open classroom to issues in day care and the latest research findings in the field of early childhood. The book review section provides an excellent guide to quality publications.

- New Directions For Early Child Development Programs: Some Findings From Research, Datta, Lois-ellin, ERIC Clearinghouse on Early Childhood Education, Urbana, Ill., Available from College of Education Curriculum Laboratory, University of Illinois, 1210 W. Springfield Ave., Urbana, Ill. 61801 (Catalog No. 1300-50, $1.70), EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 54.

  Information on the preschool years, which has emerged from the pioneering studies of the 60's, is reviewed and interpreted with regard to implications for current and future policy.

- Parent Involvement In Early Childhood Education: A Perspective From The United States, Datta, Lois-ellin, Paper presented at the Centre for Educational Research Innovation Conference on Early Childhood Education, Paris, France, EDRS price, MF-$0.75, HC-$5.40, 1973, pp. 120.

  The purpose of this paper is to consider the origins of the trend toward parent involvement, to describe its various forms, and to present some policy implications. Parent components of various Head Start and Follow-Through programs and research implications for different models of parent involvement are discussed. Topics focus on parental role in early childhood education, barriers and incentives to parent participation, and costs of different forms of parent involvement. An extensive bibliography is included.

- Making Sense Out of Our Education Priorities, White, Burton L., Harvard University, Cambridge, Mass., Laboratory of Human Development, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 6.

  This paper examines the need to recognize the importance of the role of the family as educator during a child's first three years in order to prevent educational underachievement. Projects Head Start and Follow Through, and the Parent Child Center Project are discussed. A pilot program whose major focus is to provide support and professional guidance to families with newborn infants is described. A plea is made to develop programs to assist parents in educating their children from birth.

- Children's Needs in the 70's: A Federal Perspective, Zigler, Edward, Paper presented at the 79th annual convention of the American Psychological Association, Washington, D.C., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 18.

  The former director of the Office of Child Development discusses the nation's treatment of its children, reviewing the shortcomings in relation to the treatment of foster children, adoption laws, children's institutions, and the attack on Head Start. He states that Head Start's achievements have been impressive and foresees a progression to types of centers that would provide a variety of services for children, one very important one being day care. These centers of the future, he feels, must be heterogeneous in terms of socioeconomic classes. He also recommends the development of centers to help parents in the parenting function; we should insist, he states, that as part of high school life, every adolescent receives courses in parenting -- tutoring children and working in day care centers.

- Parent Programs in Child Development Centers, First Chance for Children. Vol. I, Lillie, David L., Ed., North Carolina University, Chapel Hill, N.C., Technical Assistance Development System, EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 94.

Seven articles discuss components of parent programs in the early education of deaf and hard-of-hearing children which are thought to be applicable to parental involvement in almost all child development programs. Parent-child and professional interaction is considered in terms of establishing a productive relationship with parents and facilitating parent-child communication.

- The Maple Grove Story, Thompson, Edra, and others, available from Niagara Centre, The Ontario Institute for Studies in Education, 187 Geneva St., St. Catharines, Ontario L2R 4P4, Canada, $1.50, plus postage, EDRS price, MF-$0.65, HC-$6.58, 1972, pp. 136

This monograph documents some aspects of school life at an Ontario school for kindergarten and first grade students. The report emphasizes some of the special features of the school, such as the use of parent volunteers; a highly individualized program based in a large measure on students' goals, interests, and readiness; a comprehensive evaluation of the kindergarten program; a parents' manual for home instruction that forged a new type of school-home cooperation; and a "Mini-school" for preschoolers operated by parents as a pilot project in early childhood education.

- Ideas for Parent-Teacher Home Learning Kits, Swick, Kevin J., Southern Illinois University, Carbondale, Ill., EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 5.

In the hope of extending school learning experiences into the home environment, this paper proposes that parents and teachers should combine their efforts to develop home learning kits. To develop any effective home learning program, the paper notes, the kits must be related to what is happening in the classroom.

- A Unique Approach to Programming for the Preschool Child, Bert, Diane K. and Levenson, Joan, Paper presented at the Annual Convention of the American Psychological Association, Montreal, Canada, EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 7.

This short paper describes the Parent Readiness Education Project (PREP), a successful innovative effort to ameliorate the deficiencies of preschool children by training parents to enrich their home environment and improve interactions with their children through a specific program of daily home activities. PREP identifies 4-year-old children with a high risk of school failure and plans a program of home intervention, using the mother as the change agent. High school students also work with the 4-year olds and receive training for their future roles as parents.

Language Experiences For Your Preschooler, Part I: Activities At Home, Available from the University of the State of New York, Education Dept., Bureau of Continuing Education Curriculum Development, Albany, N.Y. 12224 (no price quoted). EDRS price, MF-$0.75, HC-$3.15 plus postage, 1974, pp. [illegible]

The purpose of this manuscript is to encourage the development of communication skills of preschool children by introducing their parents to a number of learning activities suitable for use in the home. It is written to be used by an instructor who is working with the parents of preschoolers. Parent take-home sheets contain information and exercises they can use to increase their own knowledge. The major expectation is that the activities will enhance a child's chances of success in the initial stages of learning to read and write.

New Orleans Parent Child Developmental Center, Wiener, Gerald, and others. Variations of this paper were presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, Pa., March-April 1973, and the annual meeting of the American Orthopsychiatric Association, New York, N.Y., May-June 1973. EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 33.

The New Orleans model for parent-infant education involves the use of non-professional workers, trained by professional staff, who teach general concepts of child development and child management to groups of disadvantaged mothers. Two themes are stressed: the parent is now and will be the child's most important teacher, and all the baby's time is learning time. In the long range view, research at the Parent Child Center is designed to investigate whether or not educational intervention needs to be implemented from the first year of life for optimal success and also to evaluate two systems of delivering services--in center versus home visits. Results are as yet inconclusive.

Parents As Teachers: Promise And Pitfalls, Baker, Bruce L., Paper presented at the Annual Convention of the American Psychological Association, Montreal, Canada, EDRS price, MF-$0.75, HC-$1.50, 1973, pp. 10.

The problems encountered in the implementation of a behavior modification parent-training program are discussed. Data were gathered at Camp Freedom, a seven-week residential behavior modification summer program for parents with retarded children.

Termination of Parental Rights, De Francis, Vincent, The American Humane Association, Children's Division, P.O. Box 1266, Denver, Colo. 80201, $0.35, 1971, pp. 20.

This paper is based, in part, on early findings of a special research project conducted by the Children's Division of the American Humane Association under a grant by the Child Welfare Foundation of the American Legion. The writer reports early findings in his exploration of the termination of parental rights and the legal complications surrounding the procedures. Basic data with respect to rights of parents and children and variations on the theme of how parental rights are affected are presented and discussed.

- A Father's Guide to Parent Guides: Review and Assessment of the Paternal Role as Conceived in the Popular Literature, paper presented at the National Council on Family Relations/American Association of Marriage and Family Counselors Annual Meeting, St. Louis, Mo., October, 1974, pp. 14. Available by writing: Mr. John DeFrain, Department of Human Development and the Family, College of Home Economics, University of Nebraska-Lincoln, Lincoln, Neb. 68583.

  Reviews conventional ideas and popular literature on childrearing and finds father's role is almost non-existent or peripheral. He concludes, "children are not a mother's responsibility, nor a father's. They are a parents' responsibility." To equalize the roles of both mothers and fathers, the author suggests, will require a revolution in the way society views the family. He advocates changing the present-day system which keeps women at home and men at work to a more flexible one in which there are more opportunities for increased part-time work. He notes that to make this possible there must also be a great improvement in professional child care. Similarities rather than differences in men and women should be emphasized, he believes.

- Family Life Education Reexamined: Applications for Teachers, American Home Economics Association, 2010 Massachusetts Ave., N.W., Washington, D.C. 20036, $3.00, 1971, pp. 89.

  This publication contains 12 resource papers, plus a summary of the main ideas and suggestions presented at a 1971 national workshop on Family Life Education jointly sponsored by the American Home Economics Association and the National Council on Family Life Education. Among the topics covered are: The Changing Youth Culture and the Family, Family Lifestyles in Varying Subcultures, Human Sexuality and Changing Values and Mores, The Family and the Aging, Family Life Education for Children Under Six, and Changing Family Roles.

- Education for Effective Parenthood: Children Are Our Business, Hughes, Kathryne Sheehan, ed., Home Economics Education Association, 1201 Sixteenth St., N.W., Washington, D.C. 20036, HE-51, stock no. 261-08400, 1969, pp. 24.

  This issue of the "Teachers of Home Economics" brings together suggestions for initiating an effective parenthood education program centered about a laboratory for the young child and suggestions for planning comprehensive home economics instruction on human growth and development. Described are successful school programs that have included nursery laboratories and have found them of value in educating youth for their potential role as parents.

- "Father Participation in Infancy," Pedersen, Frank A. and Robson, Kenneth S., American Journal of Orthopsychiatry, 39: 3; 466-472, Apr 69.

This study of 45 middle-class families and their first-born infants (21 male and 24 female) is an assessment of father-infant interaction with measurements on caretaking, investment of time spent in play, irritability level, apprehension over well-being, authoritarian control, stimulation level of play and overall availability. Findings indicated that the majority of fathers were highly involved with their first-born child. The data on attachment revealed that for boys the occurrence of greeting behavior appears highly related to readily defined paternal behavior, with both positive and negative associations of a relatively high order. With girls, however, the factors affecting attachment are much less clearcut. In fact, the researchers reported, it almost appears that there may be different attachment systems operating. The larger proportion of the male sample had a relatively clear attachment with fathers who were nurturant, actively but patiently involved, and more emotionally invested in his upbringing and development. The fathers of the one quarter of the infants who did not show attachment were more distant, less actively involved and possibly more anxiety arousing. The researchers called for more study on the subject, noting that father-infant relationships are of greater significance than previous research attention would suggest.

- "Effects of Father Absence on Personality Development in Adolescent Daughters," Hetherington, E. Mavis, Developmental Psychology, 7: 3; 313-326, Nov 72.

This paper investigated the effects of father absence due to divorce or death on adolescent girls. Few deviations in traditional measures of sex-role typing were obtained; however, disruptions in interactions with males occurred. In the daughters of divorcees this took the form of proximity seeking and attention seeking from males, early heterosexual behavior, and various forms of nonverbal communication associated with openness and responsiveness. In contrast, the daughters of widows manifested inhibition, rigidity, avoidance, and restraint around males. Early separation from fathers had more severe effects than late separation. Differences among divorcees, widows, and mothers of intact families on various personality measures, on child-rearing attitudes, and on relations with their daughters were also investigated.

- "Effects of Parental Dominance, Warmth and Conflict on Imitation in Children," Hetherington, E. Mavis and Frankie, Gary, Journal of Personality and Social Psychology; 6; 2; 119-125, June 67.

Subjects in this study were 80 male and 80 female nursery school and kindergarten children and their parents. Their ages ranged from 3 to 5 years; their parents were classified as lower middle class. The purpose of the study was to investigate the effects of parental dominance, warmth, and conflict on imitation of parents by boys and girls. The findings support previous research showing that parental warmth and dominance are factors in identification and suggest that maternal warmth facilitates imitation of the mother more than paternal warmth facilitates imitation of the father. However, under father dominance, boys imitated the father more while girls continued to imitate the mother. The authors note that this suggests that paternal dominance has a more important effect on the identification of boys than girls." The 3 to 5 age range of the subjects is considered a particularly important transition period for boys where identification must shift from the mother to the father. They also note that for girls, who do not need to shift their identification, maternal warmth may be the more salient variable in imitation. The findings also showed that in stressful home situation having high conflict there is more imitation of the dominant parent than in low-conflict homes. Further, in high-conflict homes where both parents are low in warmth, there is a significant tendency for both boys and girls to imitate the dominant parent regardless of the sex of the parent.

- "The Father-Daughter Relationship and the Personality Development of the Female," Biller, Henry B. and Weiss, Stephen D., The Journal of Genetic Psychology; 116; 79-93, Mar 70.

The father's role in the family seems to be of great significance in the process of feminine identification and personality adjustment in the female. The relationship which he maintains with his wife affects his children in terms of the balance in parent-child relationships and the emotional climate of the family. Literature cited in this review suggested many ways in which the father's behavior can facilitate or inhibit the girl's personality development. Paternal child-rearing practices, discipline, social attitudes, and personality appear to be important factors. The particular character of the father-daughter relationship appears to profoundly affect feminine development and to have pervasive and lasting effects upon a girl's personality and social adjustment, the authors conclude.

● "Transition to Parenthood: Problems and Gratifications," Russell, Candyce Smith, Journal of Marriage and the Family; 36; 2; 294-301, May 74.

This study extends the focus of parenthood research to include a variety of subjectively positive as well as negative aspects of becoming a parent for the first time. The researcher questioned a cross-section of Minneapolis couples on the degree of crisis they felt during first-time parenthood. Crisis was defined as change in self, spouse, or relationships with significant others which the respondent noted as "bothersome." No directly observable behavior was rated in terms of crisis--only mother's and father's subjective interpretations were used. The responses to the questionnaire indicated that there is a slight or moderate degree of crisis associated with the entry of the first child into the family. However, the researcher concludes, the respondents perceived their first year of parenthood as only moderately stressful. A "gratification" checklist asked new parents what things they enjoyed about their newly acquired role. Education was inversely and significantly related to gratification scores for both men and women. The more educated they were, the fewer gratification items checked. While these respondents checked a far higher proportion of "gratification" items than "crisis" items, the gratifications they checked were more likely to be personal ones rather than benefits to the husband-wife relationship or to relationships outside marriage. In addition, data found in this study suggest that age and timing of parenthood in the marital career of a woman may be related to the level of gratification she initially receives from the parental role. The researcher notes: "It may be that young women need time to adjust to their marriage or to 'mature' as persons before becoming parents while older women, for reasons of stamina or patience, enjoy their infants more if they do not postpone parenthood too long after marriage. It is also possible that older marrieds delayed having children because of ambivalence about parenthood."

● "Parental Determinants of Peer Orientation and Self Orientation among Pre-Adolescents," Hollander, Edwin P. and Marcia, James E., Developmental Psychology; 2; 2; 292-302, Mar 70.

The hypothesis was tested that children who perceive their parents' upbringing practices to be peer-oriented tend to be peer-oriented themselves. Two classes of fifth grade pupils (30 boys and 22 girls) were individually interviewed to ascertain their own and their parents' use of peers as a standard. Within classrooms, a questionnaire was administered posing six problematic situations which each child responded to in terms of peer standards as against either his own or his parents' standards. Sociometric ratings were also obtained in each class by having same-sex children rate each other on several scales including those aimed at peer orientation. A significant relationship was found between the reported parents' peer orientation and the child's peer orientation, as revealed by the interviews, questionnaire responses, and sociometric ratings. Sex differences as well as differences in perceived attributes in the sociometrics were also found to be associated with the child's peer-versus self- or parent orientation.

"Socialization and Instrumental Competence in Young Children," Baumrind, Diana, Young Children: 26, 2; 104-119, Dec 70.

This study reported that the following adult practices and attitudes seem to facilitate the development of socially responsible and independent behavior in both boys and girls: Modelling by the adult behavior which is both socially responsible and self-assertive, especially if the adult is seen as powerful by the child and as eager to use the material and interpersonal resources over which he has control on the child's behalf. Firm enforcement policies in which the adult makes effective use of reinforcement principles in order to reward socially responsible behavior and to punish deviant behavior, but in which demands are accompanied by explanations, and sanctions are accompanied by reasons consistent with a set of principles followed in practice as well as preached by the parent. Nonrejecting but not overprotective or passive acceptant parental attitudes in which the parent's interest in the child is abiding, and, in the preschool years, intense; but where approval is conditional upon the child's behavior. High demands for achievement and for conformity with parental policy, accompanied by receptivity to the child's rational demands and willingness to offer the child wide lattitude for independent judgment. Providing the child with a complex and stimulating environment offering challenge and excitement as well as security and rest, where divergent as well as convergent thinking is encouraged.

"Limit Setting and Psychological Maturation," Millar, T. P., Archives of General Psychiatry: 18; 214-221, Feb 68.

This paper seeks to explore the role of limits in promoting the psychological maturation of the child and the factor in parent-child interaction that influences the limit-setting process. It is the author's experience that children frequently struggle to retain their omnipotent comprehension of the world and that parents' capacity to set wise limits and hold them is an important ingredient in helping the child find his way beyond egocentricity to ethnocentricity upon which successful social interactions are based.

"Maternal Child Rearing and Creativity in Sons," Heilbrun, Alfred B. Jr., The Journal of Genetic Psychology: 119; 175-179, Dec 71.

This investigation was conducted to test the hypothesis that late adolescent males who describe their mothers as highly controlling and low in nurturance are especially susceptible to influence by external evaluative cues and limited in ability to influence their own behavior. This in turn is believed to influence creativity or its lack, since this quality is nurtured by the ability to respond independently of social rewards and punishments and to follow one's own direction. Ninety-six white Emory University males with a mean age of 18.9 years were tested. The expectation that college males whose mothers were highly controlling and low in nurturance would be lacking in creativity was supported.

● "Parent-Child Relationships: A Decade Review of Research," Walters, James and Stinnett, Nick, Journal of Marriage and Family; 33; 1; 70-111, Feb 71.

After sampling approximately 200 research studies of parent-child relationships, the authors summarized some of the findings which have significance for further research efforts. The era of viewing children as solely the products of their parents' influence is past; children themselves exert powerful influences upon parent-child relationships. There is need for more study of the relationship between fathers and daughters. When parents create a setting where children exercise the power, children tend to remain insensitive to the needs of others. An increase in parental authoritarianism and a decrease in parent-child communication was observed as size of the family increased. Limited evidence suggests the presence of poor parent-child relationships in the background of persons whose sexual behavior is of a non-normative nature. Boys are perhaps more susceptible than girls to parental influence. Parental warmth is a factor which influences occupational choices among children as well as their academic achievement, leadership, and creative thinking. Middle-class parents tend to be more controlling and supportive of their children than lower-class parents. Parents have a differential impact among various ethnic groups, and at different stages of the family life cycle. The peer group is of great importance in role learning. Except for adults in the public school system, there is little encouragement given to the establishment of relationships with adults outside the family. The authors weighed the significance of these findings and made some recommendations of their own for future research. There is need for further study of the influence of the father on parent-child relationships, prejudicial labeling should be divorced from behavior analysis. There is need for more longitudinal studies of family relationships, more studies based on statewide, nationwide and international levels, more research into non-normative family structures, the relationship between older parents and their adult children, and more imaginative and innovative ways of conducting research.

● "Sociometric Classroom Popularity and Children's Reports of Parental Child-Rearing Behavior," Armentrout, James A., Psychological Reports; 30; 1; 261-262, Feb 72.

This study compared the child-rearing behaviors perceived and reported by 96 white fourth, fifth, and sixth graders in four Catholic schools in working-class areas of St. Louis who were ranked relatively high or low in popularity among their classmates. Its purpose was to determine whether such children would give evidence of differences in the nature of their interactions with parents as well as with peers. Children high in peer popularity reported greater acceptance by their parents than did those low in popularity, while all reported, on the whole, greater acceptance by mothers than fathers. Children's reports of the extent of covert and overt control by each parent were unrelated to peer popularity in this study.

● "Mother-Child Interaction in the First Year of Life," Tulkin, Steven R. and Kagan, Jerome, Child Development, 43; 1; 31-41, 72

The subjects of this study were 30 middle class and 26 working-class mothers. Each was observed at home with her first-born baby girl (approximately 10 months) for two hours on two separate days. The purpose was to examine the experiences of infants from different social class backgrounds. The environments of the infants in the two classes differed in several ways. There was more "extraneous noise" in the working-class homes, conditions were more crowded and the infants had more interaction with adults other than their mothers, and spent more time in front of TV sets. Working-class infants had less opportunity to explore and manipulate their environments, had fewer toys and objects with which to play and spent less time with "no barriers." The majority of class differences in maternal behavior centered around the mother's verbalization and her attempt to keep the infant busy. There was no class difference in the amount of time mothers spent in close proximity to their infants although middle-class mothers more often placed their infants in a face-to-face position. There were also no significant differences for frequencies of kissing, holding, or active physical contact. No class differences were found in the frequency of maternal prohibitions, even when controls were introduced for the amount of time infants were free to crawl and explore. When infants touched their mothers or handed objects, working class mothers responded as often positively as middle-class mothers. The paucity of social class difference for nonverbal variables was in sharp contrast with the dramatic differences for mothers' verbal behavior. Every verbal behavior coded was more frequent among middle-class mothers. The researchers noted that informal discussions with mothers suggested that one source of variance in maternal behavior was the mothers' concept of her infant. Some working-class mothers did not believe that their infant possessed the ability to express "adult like" emotions or to communicate with other people, hence it was futile to interact with infants. Working-class mothers also seemed to think that they could not have much influence on the development of their children. Many believed that infants are born with a particular set of characteristics and that environmental influence is minimal. The authors suggest these findings have implications for infant intervention programs.

● "Curiosity and the Parent-Child Relationship," Saxe , Robert M. and Stollak, Gary E., Child Development, 42; 2, 373-384, June 71.

Four groups of first grade boys were observed with their mothers in a playroom to discover the reciprocal influence the behavior of children and parents have on each other. The results indicated that mothers of curious, prosocial boys displayed more positive feeling, fewer restrictions and less nonattention than mothers of aggressive boys. Mothers of curious, high prosocial boys also displayed more positive feeling than mothers of low-curiosity boys. Mother's positive feeling was also correlated with the child's attentiveness, manipulation and offering information.

- "Child Care By Adolescent Parents," De Lissovoy, Vladimir, Children Today; 2; 4; 22-25, July-Aug 73.

  Details a study on the childrearing attitudes and practices of young mothers and fathers who married while they were still in high school. The study revealed that young parents were not familiar with developmental norms and caring for their children was a trying experience for most of them.

- "Concerns of Rural Adolescent Parents," De Lissovoy, Vladimir, Child Welfare; 54; 3; 167-174, March 75.

  This article reports on a clinical study of the economic, social, and child rearing concerns of 32 couples living in semirural areas of Pennsylvania. Their ages, at the time of marriage, ranged from 15 to 18 for the girls and 14.5 to 19 for the boys. Virtually all the couples reported that they owed money to hospitals, physicians, mail order houses and finance companies. Most of the young mothers revealed feelings of loneliness, a lack of social life and the unavailability of former friends while the young husbands, in almost all cases, maintained their friends and were active in a variety of "male" social activities. The husbands, during interviews, expressed surprise at the loneliness of their wives and often were not aware of their wives' predicament. Only five of the young mothers expressed any feeling of enjoyment of their children. These parents knew little about normative child development and their answers to interview questions implied unrealistically early developmental and behavioral expectations. The author concludes that there is a great need for a continuing and expanded effort to help young married people understand and cope with their responsibilities as parents. If any impact is to be made in this effort, he suggests major changes must be implemented in the area of social values and in the area of national policy.

- "Early Motherhood: Ignorance or Bliss?" Presser, Harriet B., Family Planning Perspectives; 6; 1; 8-14, winter 74.

  Presents an analysis of first-births to 408 New York City women and explores the processes whereby the roles of women affect the ages at which they first give birth, and the effect of age at first birth on women's subsequent roles and fertility.

- "Adolescents As Mothers," Osofsky, Howard J. and Osofsky, Joy D., American Journal of Orthopsychiatry; 40; 5; 825-834, Oct 70.

  This paper reports the results of the Y MED program (Young Mothers Educational Development) sponsored by the State University of New York, Upstate Medical Center at Syracuse, the Syracuse Board of Education, and the Onondaga County Department of Health. The program offers comprehensive services for low-income pregnant adolescents and their infants. Striking successes are noted for both mothers and infants. However, residual problems remain, and these are discussed.

- "Adolescent Pregnancy: The Need for New Policies and New Programs," Klerman, Lorraine V., The Journal of School Health; 45; 5; 263-267, May 75.

  Suggests that society must change in structure and attitude if America is to move toward prevention of early, frequent or otherwise inappropriate adolescent pregnancies.

- "Teaching Child Development to Teenage Mothers," Weigle, Joan W., Children Today; 3; 5; 23-25, Sept-Oct 74.

  A special course in child development helps teenage mothers enrolled in the New London (Conn.) Young Parents Program to be more confident about their child rearing. The course, which is accredited as part of their academic program, gives them new insight into areas of child behavior and discipline.

- "School-Age Parenthood, A National Overview," Braen, Bernard B. and Forbush, Janet Bell, The Journal of School Health; 45; 5; 256-262, May 75.

  Describes the evolution of school-age parenthood as a national issue and the strategies that have been developed to impact on the problem.

- "Appraising Programs for School-Age Parents," Jekel, James F., The Journal of School Health; 45; 5; 296-300, May 75.

  Offers a step-by-step outline for evaluating programs for school-age parents.

- "Curriculum For The Pregnant Adolescent," Hyman, Ronald T., NJEA Review; 46; 8, 15, 45-6, Apr 73.

  Discusses the proper curriculum and educational setting for considering and motivating young pregnant students.

- "Models of Comprehensive Service--Special School-Based," Washington, Vivian, E., The Journal of School Health; 45; 5; 274-277, May 75.

  Describes programs in Columbus, Ohio, Milwaukee, Wis., Compton, Calif., and Baltimore, Md., where education, health, and counseling services are offered to school-age parents in special schools.

"Models of Comprehensive Service--Hospital Based," Grady, Elaine Wolfe, The Journal of School Health; 45; 5; 268-270, May 75.

Describes the rationale for San Francisco's services for school-age parents in which continuing education, counseling, as well as health care are offered in a hospital setting.

"Models of Comprehensive Service--Regular School-Based," Klein, Luella, The Journal of School Health; 45; 5; 271-273, May 75.

Describes a comprehensive program for school-age parents developed in cooperation with three high schools and the Maternal and Infant Care Project at Grady Memorial Hospital, Atlanta, Ga.

"Psychological Needs of The Pregnant Adolescent," Gould, Kenneth, NJEA Review; 46; 8; 16-7, 43, Apr 73.

Outlines the problems to consider in understanding the emotional difficulties of a young girl who has become pregnant.

"Counseling Services for School-Age Pregnant Girls," Sharpe, Ruth, The Journal of School Health; 45; 5; 284-285, May 75.

The counseling services of two special schools in the Chicago area are discussed. The author notes that the model of comprehensive services for pregnant school-age girls should be based on the needs of the students, and since there are those who can remain in school and those who cannot, such services should be available to both groups.

"The Mother-Daughter Relationship: Its Potential in Treatment of Young Unwed Mothers," Friedman, Helen L., Social Casework; 47; 502-506, Oct 66.

This article suggests that a re-examination and an evaluation of work in the area of the mother-daughter relationship will prove beneficial in helping the unwed adolescent mother. A girl whose mother has actively participated in the feelings and events of her daughter's pregnancy seems to do better in integrating the experience.

- "The Role of the Grandmother in Adolescent Pregnancy and Parenting," Smith, Eleanor Wright, The Journal of School Health; 45; 5; 278-283, May 75.

  Discusses the need to understand the concerns and problems of the mother of the pregnant adolescent and provide her with the supports she needs so that she is able to guide her daughter to motherhood.

- "The Unmarried Father Revisited," Pannor, Reuben and Evans, Byron W., The Journal of School Health; 45; 5; 286-291, May 75.

  Discusses the implications for social agencies, caseworkers, programs, etc., of the recent Supreme Court decision in the Stanley vs. Illinois case and concludes that the new emphasis on the rights of the single father may in the long run prove advantageous to single parents and their children.

- "Challenge For The Third World: Preparing Girls For Parenthood," Spiegleman, Judith, Children Today; 2, 2; 15, Mar-Apr 73.

  A report on how UNICEF is helping educate girls in underdeveloped countries to become better mothers.

- "Education for Parenthood and School-Age Parents," Kruger, W. Stanley, The Journal of School Health; 45; 5; 292-295, May 75.

  Discusses the Education for Parenthood program in relation to school-age parents.

- "Early Childhood Development: Teaching Teen-agers About Parenthood," Wolverton, C. Dollie, Comp. [illegible] 29-31, Jul-Aug 73.

  Discusses new parenthood education courses that combine classroom instruction in child development with practical experience in working with young children in early childhood settings such as Head Start programs, day care facilities, kindergartens, and primary grades.

- "Early Childhood Education: Institutional Responsibilities for Early Childhood Education," Grotberg, Edith H., *National Society for the Study of Education Yearbook*; 71 pt 2; 317-38, 72.

  Author emphasizes the need for parent participation in early childhood education as vital to child development.

- "Transition to Parenthood," Rossi, Alice S. *Journal of Marriage and the Family*; 30; 1; 26-39, Feb 68.

  A structural analysis of the parental cycle pinpoints the factors which make transition to parenthood more difficult than marital and occupational adjustment in American society.

- "Education For Parenthood," Marland, S. P. Jr., *Children Today*; 2; 2; 3, Mar-Apr 73.

  Describes the Education for Parenthood program, jointly sponsored by the Office of Child Development and the Office of Education. The program has developed a formal curriculum in parenting which combines classroom instruction with actual work with children.

- "Teaching Parenthood," Kruger, W. Stanley, *American Education*; 8; 10; 25-8, Dec 72.

  Describes a national movement that seeks to strengthen family life by encouraging the schools to educate students for good parenthood.

- "Education For Parenthood And The Schools," Kruger, W. Stanley, *Children Today*, 2; 2; 4-7, Mar-Apr 73.

  Author proposes a re-examination of current secondary school curricula toward including those programs which are essential to the preparation of young people for parenthood.

- "Exploring Childhood," Milesko-Pytel, Diana, American Education; 2; 7; 6-10 Aug-Sept 75.

  Describes the overall goals of the nationwide program designed to help teenagers become good parents; gives details on how the curriculum is working in several Illinois schools.

- "Viewpoint: Meeting Adolescents Needs," Cohen, Donald J., Children Today; 2; 2; 28-9, Mar-Apr 73.

  Author presents some benefits for teenagers involved in Education for Parenthood, and calls for a realistic approach to the whole program.

- "Exploring Childhood," Clayton, Marilyn; Dow, Peter B., Children Today; 2; 2; 8-13, Mar-Apr 73.

  Outlines an Exploring Childhood program for high school students which allows them to work with and learn from preschool children.

- "Group Process For Developing Self-Esteem in High School Students," Peterson, Kenneth; Bertino, Eleanor, College Student Journal; 5; 3; 6-11, Nov-Dec 71.

  Describes group dynamics, group relations and how they relate to high school students interpersonal relationships. The importance of parent participation and student-teacher relationships in the development of self-esteem.

- "Gaithersburg High School Child Development Laboratory," Durbin, Louise, Children Today; 2; 2; 19-23, Mar-Apr 73.

  An account of a successful high school child development laboratory program in Gaithersburg, Maryland.

- "Looking Back," Ambosino, Lillian, Children Today; 2; 2[illegible]0, Mar-Apr 73.

  Author contends that programs that offer students opportunities for real work with children can meet the students' needs to prove to themselves and others that they can master a given situation.

- "Early Childhood Development: Missouri's Approach: More of the Same is No Answer," Mallory, Arthur L., Compact; 15-17, Jul-Aug 73.

  Describes Missouri's programs for early childhood education. Programs range from day care in the inner-city schools to classrooms on wheels that carry teachers and materials to children and their families in rural areas. Heavy stress is placed on helping parents.

- "Effectiveness of a Parent Volunteer's Social Reinforcement on Students in an Open-Space Classroom," Lloyd, Phil, Tennessee Education; 3; 3; 13-14, F 73.

  The effectiveness of using a parent volunteer as a mediator in a behavioral modification technique with four disruptive pupils is investigated.

- "Home Starts I and II," Scott, Ralph; Thompson, Helen, Today's Education; 62; 2; 32-4, Feb 73.

  A central premise of the Home Start program is that parents are the child's first teachers and that many parents want training to help them meet the challenges of parenthood.

- "Teaching Mothers to Alter Interactions with Their Children: Implications for Those Who Work with Children and Parents," Kogan, Kate L., and others, Childhood Education; 49; 2; 107-10, Nov 72.

  Report summarizes research conducted in the Child Development and Mental Retardation Center and the Department of Psychiatry at the University of Washington, based on five to six years of preliminary study in analyzing styles of social interaction between young children and their mothers.

- "A New Model For Working With School-Community Councils," Azarnoff, Roy, NASSP Bulletin; 58; 378; 58-62, Jan 74.

  Article suggests a model for training members of school-community councils.

- "Increasing Academic Performance Through Home-Managed Contingency Programs," Karraker, R.J., Journal of School Psychology; 10; 2; 173-79, 72.

  To increase performance, parents were instructed to present contingent consequences at home. Three methods were used for instructing parents in program management. All three methods resulted in increase in pupils' percent correct, but no substantial difference was observed as a function of mode of parent instruction.

- "Parent-Assisted Learning in the Inner City," Niedermeyer, Fred C., Urban Education; 8; 3; 239-248, Oct. 73.

  Describes a study conducted to develop effective strategies whereby inner city schools obtain instructional support from a large proportion of parents, and to examine the effectiveness of developed alternatives designed to maintain parents' continuing participation.

- "Parental Apathy: The School Counselor's Albatross," Norton, Francis H., School Counselor; 19; 2; 88-91, Nov 71.

  Counseling skills are not limited solely to the counseling office or to the students served. Counselors must be willing to commit themselves to meeting the needs and concerns of the parents, too. It is only then that parents will become an active, involved part of the total counseling process.

- "Involving Parents in a Children's Clinic," Langellotto, Eugene, Children; 18; 6; 202-207, Nov-Dec 71.

  Activities of low-income parents of children served by a comprehensive pediatric clinic illustrate how inclusion of clients in the structure of health projects encourages them to speak and act for themselves.

- "South Umpqua's Kitchen Classrooms," Guernsey, John, American Education; 8; 5; 24-7, Jun 72.

  Children in a sparsely populated district in Oregon receive first-rate preschool training at a fraction of the cost of customary kindergartens.

- "Community Involvement: Everybody's Talking About It," Abbott, Jerry L., National Elementary Principal; 52; 4; 56-59, Jan 73.

  Discusses ways in which schools can get parents more actively involved in the education of their children, such as work in the classroom, a community resource file, library help, and personal contacts with parents. A case study presents the way in which one school involved parents in the school program.

- "Evaluation of a Parent and Child Center Program," Hamilton, Marshall L., Child Welfare; 51; 4; 248-58, Apr 72.

  Article describes changes that occurred in children and parents who participated in a preschool intervention program.

- "The Case For a Drop-Out School," Rich, Adrienne, New York Review of Books; 18; 11; 33-35, Jun 15, 72.

  Describes the setting up and history of a storefront school on the Upper West Side of Manhattan, which attempts to cater to the needs of dropouts from schools around the city who have felt completely disaffected from their education--the students being from white, middle-class, professional, and politically liberal families.

- "Open House--The Living Room School," Tanzman, Jack, School Management; 16; 8; 22-23, Aug 72.

  An innovative undertaking uses the home setting for a program involving both preschool age children and their parents.

- "High School Parent-Child Education Center," Casey, Vera M., Young Children; 29; 2; 90-95, Jan 74.

  Describes the Berkeley High School Parent-Child Education Center which provides day care services and child care courses for teenage parents in conjunction with its regular high school classes.

- "Communal Child Care: Isolation or Constellation?" Friedberg, Marjorie H., Millsom, Carol A., New York University Education Quarterly; 3; 2; 6-12, Spr 72.

  Optimal conditions for child development and preschool learning can be provided in away-from-home programs that operate in a cross-cultural community configuration supported by professionals.

- "Parent Education and How It Grew - In Cincinnati," Cooper, Anna Hayes, Adult Leadership; 23; 2; 39-40, Jun 74.

  The supervisor of Parent Education in Cincinnati describes the lay leadership training program organized to train leaders in parent study-discussion groups. Comments are directed toward the program's growth, purposes, and success.

- "Reflections on a Parent-Run School," Kerr, Markey, Education Exploration Center Journal; 3, 18, Oct Nov 73.

  Parent involvement in school administration and in the classroom as a volunteer is viewed by a teacher in a non-public, parent cooperative, alternative school.

- "A Successful Compensatory Education Model, " Stenner, A. Jackson; Mueller, Siegfried G.; Phi Delta Kappan; 55; 4; 246-248, Dec 73.

  A major 6-year program in the Chicago schools has proven that the traditional gap between advantaged and disadvantaged students can be systematically and substantially eliminated. The Chicago Child Parent Center program is described.

- "What Makes the Difference in Parental Participation?" Bauch, Jerold P., and others; Childhood Education; 50; 1; 47-53, Oct 73.

A study of the quantity and quality of unpaid parent participation in Head Start centers shows that the size of the center is the most important variable influencing the amount of parent participation. Other critical factors include the purpose of the involvement, staff responsibility and role assignments, and the centers' communications system.

- "Building Parent Involvement," Nelson, Richard C.; Bloom, John W., Elementary School Guildance and Counseling; 8; 1; 43-49, Oct 73.

Discussed is the rationale behind parent involvement in guidance and educational activities, together with specific suggestions for involving parents with other adults (parent advisory committees, informal coffees, transactional analysis groups, etc.), with children (story hours, trips, demonstrations, counseling booths, testing, interviewing, etc.), and with materials (construction, film, production, etc.) Cautions that should be observed in including parents are also discussed.

- "The Sermon of St. Paul--Reach for the Impossible Dream," Branan, Karen, Learning; 2; 3; 16-20, Nov 73.

This article describes St. Paul Open School in Minnesota which is testing a multitude of learning theories. Parents were largely responsible for the development of the school.

- "Parental Responsibility in the Teaching of Reading," Weiser, Margaret G., Young Children; 29; 4; 225-230, May 74.

Discusses the role of parents in helping the child learn to enjoy reading.

- "Assisted Reading and Parent Involvement," Hoskisson, Kenneth, and others, Reading Teacher; 27; 7; 710-14, Apr 74.

Reports how parents helped two youngsters overcome reading difficulties. Also presents some tentative but studied observations about parents helping their children learn to read or to read better.

● "Summer Mobile Preschool: A Home-Centered Approach," Greenstein, Betty Lesser, and others, Young Children; 29; 3; 155-160, Mar 74.

Describes the summer mobile preschool program designed to help parents recognize the potential learning possibilities of a home-based preschool program. Small groups of seven to ten children attend class in one of seven neighborhood homes in which the preschool meets.

● "Growing With Project Circle," Cunningham, Myron, and others, Childhood Education; 50; 3; 136-138, Jan 74.

In Gainesville, Fla., Project CIRCLE (Cooperatively Involved Resources for Children in Low-Income Environments), a model preschool center, developed an in-service training program for early childhood teachers, and involved parents and community consultants in the education of preschoolers.

● "Parent Involvement in Residential Treatment Programs," Magnus, Ralph A., Children Today; 3; 1; 25-27, Jan-Feb 74.

Parent involvement in residential treatment programs can reduce the length of institutional care and guarantee longer lasting treatment results. Parents who accept a sharing role in treatment learn to cope with and accept family problems and improve their relationships with their children.

● "Reaching Unreachable Parents," Criscuolo, Nicholas P., Journal of Reading; 17; 4; 285-87, Jan 74.

Describes five school programs operating in New Haven, Conn., involving inner-city parents in reading.

● "Organizational Model for Parent Participation in Inner City Schools," Smith, Calvert H., Journal of Afro-American Issues; 1; 2; 247-256, F 72.

Describes the kind of organizational structure parents must have if they are going to participate in some meaningful and productive fashion in the activities of the school: such participation must be based upon recognition of the problems a community and a school are experiencing as they attempt to plan political decentralization.

● "Application of the Consultant Role to Parent-Teacher Management of School Avoidance Behavior," Cooper, Jo Ann, Psychology in the Schools; 10; 2; 259-262, [illegible] 73.

This study reports a successful behavior change program in a 6-year-old girl who became physically ill and continually cried at school. Behavior shaping procedures were used that differentially reinforced successive approximations to the final desired behavior. A unique aspect of this program was its utilization of the girl's mother as the primary behavior change agent.

● "Advocacy and Accountability in Consultation to the Poor," Rappaport, Julian; O'Connor, Robert D., Mental Hygiene; 56; 1; 39-47, Win 72.

Having helped to solve the myriad difficulties of opening a ghetto day-care center, the authors found they were accepted gratefully as advocates by the parents committee they had formed--but that the parents wanted to run the center in their own way, an outcome they applaud as healthy and encouraging.

● "Vocabulary Growth of Head Start Children Participating in a Mothers' Reading Program," Highberger, Ruth; Brooks, Helen, Home Economics Research Journal; 1; 3; 185-187, Mar 73.

Reports gains in vocabulary for a group of Head Start children whose mothers read to them at least 15 minutes a day.

● "Parent Night: A Unique Concept in Community Involvement," Berne, Dale L., Clearing House; 47; 8; 459-62, Apr 73.

Parent Visitation Night is a new approach to the Open House that overcomes the resistance of parental visitation and guarantees successful and meaningful community involvement in the schools.

● "Let's Read," Porter, Betty, Reading Horizons; 14; 1; 16-18, F 73.

Let's Read is a reading program for preschool and early elementary school children with the dual purpose of teaching black children and training their mothers on how to provide intellectual stimulation for their children.

- "A Life-Time, Life-Space Perspective," Schaeffer, Earl S., Today's Education; 62; 2; 28-30, Feb 73.

The challenge of education is to extend the work of education from a classroom perspective which focuses on the child's learning academic subjects in the classroom with a professional educator to a life-time and life-space perspective which extends from birth onward.

- "Motivating Attendance in Parent Education Groups," Fein, Edith, Social Work; 17; 4; 105-7, Jun 72.

The study concludes that paying parents to come to parent training programs was effective for assuring attendance at meetings. Money seems to be a more potent reinforcer of attendance than small gifts.

- "Symposium on Parent-Centered Education: 3. Learning Through Parents: Lessons for Teachers," Weikart, David P., Childhood Education; 48; 3; 135-7, Dec 71.

The primary lesson to be learned by teachers from parents is that the teacher's role is to provide service to the parents rather than "expert" translation of middle-class social wisdom into universal child-rearing practices.

- "Universal Parenthood Training: A Laboratory Approach to Teaching Child-rearing Skills to Every Parent," Hawkins, Robert P., Educational Technology; 11; 2; 28-31, Feb 71.

Discusses the need for a program which would leave the responsibility of child-rearing with the parents, but takes measures to assure that virtually all parents have the necessary skills and knowledge to do the job well.

- "Learning Packages for Parent Involvement," Hofmeister, Alan; Reavis, H. Kenton, Educational Technology; 14; 7; 55-6 Jul 74

A look at the Special Education Instructional Technology Project at Utah State University which has been exploring the development and use of learning packages to involve parents in the remediation process.

- "Parents! Bless Them and Keep Them," Maerowitz, Inge, Education Digest; 38; 7; 38-40, Mar 73.

  A kindergarten teacher describes how she utilizes parent volunteers in the classroom and gives guidelines for 'professionalizing' them.

- "Helping Inner-City Students Surpass the Norms," Popp, Leonard A., Education for the Disadvantaged Child; 2; 2; 2-5, Spr 74.

  Reports the findings of a study which investigated the effect of parental involvement in the school on student achievement in inner city elementary school classrooms.

- "Parental Apathy: The School Counselor's Albatross," Norton, Francis H., School Counselor; 19; 2; 88-91, Nov 71.

  Counseling skills are not limited solely to the counseling office or to the students served. Counselors must be willing to commit themselves to meeting the needs and concerns of the parents, too. It is only then that parents will become an active, involved part of the total counseling process.

- "Some Promising Approaches to Parent Involvement," Greenwood, Gordon E., and others, Theory Into Practice; 11; 3; 183-9, Jun 72.

  Describes 5 levels of parent involvement in schools (audience, teacher of the child, volunteer, trained worker, and participant in decision-making), with details of a follow-through program that tries to involve parents at all levels.

- "Growing With Project Circle," Cunningham, Myron, and others, Childhood Education; 50; 3; 136-138, Jan 74.

  In Gainesville, Fla., Project CIRCLE (Cooperatively Involved Resources for Children in Low-Income Environments) a model preschool center, developed an in-service training program for early childhood teachers, and involved parents and community consultants in the education of preschoolers.

- "The Behavior Modification Process for Parent-Child Therapy," LeBow, Michael D., Family Coordinator; 22; 3; 313-319, Jul 73.

This paper discusses the importance of incorporating the parents of the child with behavior problems into the treatment process by teaching them behavior modification principles. Trained parents augment the likelihood of producing long-lasting positive effects in their children and of extending their influence to other current as well as future difficulties.

- "Behavior Expertise and Social Policy: Observations on the Care, Feeding, and Utilization of Child Development Experts," Lucco, Alfred A.; Ephross, Paul H., Child Care Quarterly; 3; 2; 87-96 Sum 74.

Child care workers often seek advice from experts and are frequently themselves viewed as experts as they help parents and others. This article discusses some of the significant issues facing those who provide guidance and those who receive it.

- "Unistaps: A Family-Oriented Infant/Preschool Program for Hearing-Impaired Children and Their Parents," Northcott, Winifred H., and others, Peabody Journal of Education; 51; 3; 192-6, Apr 74.

The project develops a systems approach to early educational intervention for preschool, hearing-impaired children. The cooperative, consultative, coordinating nature of the three agencies (University of Minnesota, Minnesota State Education Department, Minneapolis Public Schools) has been built into in-service training efforts and laboratory programs.

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Note: Where an ERIC reference is cited, orders may be placed by writing to: ERIC Document Reproduction Service (EDRS), Computer Microfilm International Corporation, P.O. Box 190, Arlington, VA 22210.

- Multi-Ethnic Books for Young Children, Griffin, Louise, Comp., National Association for the Education of Young Children, 1834 Connecticut Ave., N.W., Washington, D.C. 20036, $2.00, 1970, pp. [illegible]4.

This bibliography was prepared by the National Association for the Education of Young Children (NAEYC) in cooperation with the ERIC Clearinghouse on Early Childhood Education in response to requests from teachers and parents, particularly of Head Start children for help in finding books about their children's races, their national backgrounds, their ethnic groups, or life styles. There is a capsule description of each story and an indication of its appropriateness for various age levels. Ethnic groups covered include American Indians, Eskimos, Appalachian and Southern Mountain people, Afro-Americans, Hawaiians and Filipinos, Latin Americans, Asians, Jews, and Europeans.

- Starting Out Right, Latimer, Bettye I., Day Care and Child Development Council, of America, Inc., 1012 14th St., N.W., Washington, D.C. 20005, $1.50, 1972, pp.96.

This booklet is the result of a self-initiated research project conducted by six Madison, Wis., women who were unhappy with the supply of black-experience books available to their children through public libraries, schools and bookstores. They discovered that innumerable multi-ethnic bibliographies existed but the quality of the books listed was uneven. The result of their search is this detailed bibliography of books written for children of pre-school through three years. Each title is accompanied by a critique which explains why the book is recommended or not recommended. There is also a chapter on criteria for judging books involving black people.

- A Selected Bibliography On Child Development, Preschool Nursery, And Child Day Care, Baker, Cherie, and Massey, Mary, Comps., E.C. Brown Foundation, Center for Family Studies, Eugene, Oreg., EDRS price, MF-$0.65, HC-$3.29, 1973, pp. 10.

  This selected bibliography on child development and preschool group care was developed to supplement the article, "Pre-Schoolers Provide Child Development Lab as High Schoolers Study Parenting Role," which appeared in the May 1973 issue of "Focus on the Family", the bi-monthly publication of the E.C. Brown Foundation.

- Parent Education: Abstract Bibliography, Kremer, Barbara, Comp., ERIC Clearinghouse on Early Childhood Education, Urbana, Ill., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 39.

  This bibliography includes abstracts of published and unpublished studies on parent education which fall into two categories: training for parents of children from infancy to 3 years, and education for parents of preschool children. Also included are abstracts of documents suggesting specific activities for intellectually stimulating children at home, and a section concerned with establishing and running educational day care centers. A separate section is devoted to abstracts of studies concerned with the Appalachian Educational Laboratory Projects.

- Education For Parents of Preschoolers: An Abstract Bibliography, Howard, Norma K., Comp. ERIC Clearinghouse on Early Childhood Education, Urbana, Ill., Available from Publications Office, I.R.E.C., College of Education, University of Illinois, 805 W. Pennsylvania Ave., Urbana, Ill. 61801 Catalog No. 111, $1.60. EDRS price, MF-$0.75, HC-$4.20, plus postage, 1974, pp. 75.

  This selective bibliography cites 168 ERIC documents on parent education and parent involvement during the child's preschool years. Included are reports from both home-based and center-based programs.

- Investigation of the Effects of Parent Participation in Head Start, Appendices to the Final Technical Report. MIDCO Educational Associates, Inc., Denver, Colo., EDRS price, MF-$0.65, HC-$6.58, 1972, pp. 168.

  This publication is a compilation of eight appendices to the final technical report of the project. They include the request for proposal, the telephone survey interview forms, the self-concept test forms, the program quality checklists, questionnaires, and other instruments used in the project.

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  This 149-item bibliography begins with descriptions of a number of periodicals and bibliographies, and several studies of trends in home economics education. These are followed by 27 surveys of role perception, needs, interests, and participation; 25 studies on the training of professionals and nonprofessionals for home management, parent, and family life education; 17 special programs for low-income groups; nine reports on consumer education and money management; and 56 other items concentrating on parent education, including parent child relationships and the teaching role of parents.

- Parent Education: Exceptional Child Bibliography Series, Information Center on Exceptional Children, Council for Exceptional Children, Arlington, Va., EDRS price, MF-$0.65, HC-$3.29, 1971, pp. 20.

  One of a series of over 50 similar listings relating to handicapped and gifted children, the annotated bibliography contains 92 references selected from Exceptional Child Education Abstracts written for or about parents of exceptional children.

- Parent Education/Parent Counseling, A Selective Bibliography, Exceptional Child Bibliography Series No. 631, Available from the Council for Exceptional Children, 1411 S. Jefferson Davis Highway, Arlington, Va. 22202, (no price quoted), EDRS price, MF-$0.65, HC-$3.29, 1972, pp. 32.

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- Annotated Film Bibliography: Child Development And Early Childhood Education, Holt, Carol Lou, Comp., Available from Child Day Care Association of St. Louis, 915 Olive Street, St. Louis, Mo. 63101, $3. plus $0.25 postage, 1973, pp. 148.

  This annotated film bibliography is a compilation of film listings suitable for early childhood education teacher training, parent education, and for viewing by children.

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600 Madison Avenue
New York, NY 10017

Child Day Care Association
of St. Louis
915 Olive Street
Saint Louis, MO 63101
Note: Request "Annotated Film
Bibliography, Child
Development and Early
Childhood Education."

Churchill Films
662 N. Robertson Boulevard
Los Angeles, CA 90069

Cine Vip Co.
P.O. Box 2278
Orange, CA 92669

Coronet Instructional Films
65 S. Water Street East
Chicago, IL 60611

Educational Development Center
39 Chapel Street
Newton, MA 02160

Guidance Associates
757 Third Avenue
New York, NY 10017

Hawaii State Department of Education
4211 Waialae Avenue - Room 202
Honolulu, HI 96816
Attention: Brad Powell

Indiana University Films
NET Film Service
Audio-Visual Center
Bloomington, IN 47405

McGraw-Hill
Text-Film Division
330 West 42nd Street
New York, NY 10036

Modern Talking Picture Service
(Address varies for each region.
Check with local Head Start Office.)

Parents' Magazine Films, Inc.
Department "F"
52 Vanderbilt Avenue
New York, NY 10017

Perennial Education, Inc.
1825 Willow Road
Northfield, IL 60093

Preschool Primary Productions
189 N. Wheeler
Orange, CA 92667

The Day Care and Child Development
Council of America, Inc.
1012 - 14th Street, N.W.
Washington, D.C. 20005

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2223 Fulton Street
Berkeley, CA 94720

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